



APPENDIX C

EIS/EA CONCORDANCE WITH RESPONSES TO COMMENTS RECEIVED

(Provided digitally on USB flash drive with Volume 1 binder and on website address: https://www.firstmininggold.com/springpole-ea)

- C-1 Federal Impact Assessment Agency of Canada and Environment and Climate Change Canada Comments on Baseline Study Reports and the Draft EIS/EA
- C-2 Ontario Ministry of the Environment, Conservation and Parks; Ministry of Northern Development and Mines; Ministry of Natural Resources and Forestry; Ministry of Mines, and Ministry of Tourism, Culture and Sport Comments on Baseline Study Reports and the Draft EIS/EA
- C-3 Shared Territory Protocol Nations Comments on Baseline Study Reports
- C-4 Cat Lake First Nation and Lac Seul First Nation Comments on the Draft EIS/EA
- C-5 Mishkeegogamang Ojibway Nation Comments on Baseline Study Reports and the Draft EIS/EA
- C-6 Slate Falls Nation Comments on Baseline Study Reports and the Draft EIS/EA
- C-7 Northwestern Ontario Métis Community Comments on the Draft EIS/EA





Table C-6.1: First Mining Gold Response to Slate Falls Nation Comments on the Springpole Gold Project Baseline Reports and Draft Environmental Impact Statement/Environmental Assessment

ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
SFN- 2024-001	6.6 - Birch Lake System - Section 6.6.1 and Table 6.6-3 6.8 - Springpole Lake, Southeast Arm – Section 6.8.1 6.9 - Local Inland Waterbodies – Table 6.9-1 Appendix N2 – Surface Water Quality Modelling Report – Table 2-3	"Total silver above the Canadian Council of Ministers of the Environment water quality guideline Total aluminum above the United States Environmental Protection Act (US EPA) Water Quality Criteria value of 0.24 mg/L Total iron above the British Columbia Water Quality Guidelines (BC WQG) of 1.0 mg/L Total cobalt above the Federal Environmental Quality Guideline" – Section 6.6.1 Also see data in Tables 6.6-3, 6.9-1, and 2-3. It is unclear why a mixture of water quality guidelines from various jurisdictions outside of Ontario are being applied for parameters that have Provincial Water Quality Objectives (Al, B, Cd, Co, Fe, Pb, Hg, Mo, Se, Ag, U, V, Zn) and why the guidelines used are not consistent among different sections (e.g., Appendix N1 vs. N2). Some of these guidelines are considerably higher than the PWQO; e.g., the PWQO for aluminum is 0.075 mg/L whereas the (sitespecific) US EPA value was determined to be 0.240 mg/L (based on pH, hardness, and DOC). A number of guidelines higher than PWQOs are used to determine the Effluent Treatment Plan limits (Table 2-4 of Appendix N2).	Data should be compared to PWQOs. If there is no PWQO for a parameter (e.g., nitrate or chloride), data should be compared to the CCME Canadian Water Quality Guideline for that parameter – this is the approach described in Appendix N-1. One set of guidelines should be used throughout the EIS/EA.	The final EIS/EA uses a consistent set of Water Quality Guidelines for the Protection of Aquatic Life (WQG PAL) as per the latest guidance from the Ministry of the Environment, Conservation and Parks (MECP). Recent MECP guidance necessitates the utilization of the most current WQG PAL sourced from either the Provincial Water Quality Guideline (PWQO/iPWQO), Canadian Water Quality Guidelines (CWQG), or Federal Water Quality Guidelines (FWQG).	Partially resolved We look forward to reviewing the final EIS/EA for a confirmation on the parameters established by the provincial and Canadian guidelines. Where multiple jurisdictions have overlapping guidelines, it is assumed that the PWQOs will hold priority as the most applicable guideline. However, the most recently developed objective across jurisdictions may also be preferred if they are more likely to be the most scientifically defensible, providing an appropriate level of protection to aquatic life and end users.	The consistent set of water quality guidelines informing the assessment are being updated for presentation in Section 6.6.5.2 (Analytical Methodology) and Appendix N-1 (Water Quality Baseline Report) of the final EIS/EA.	EIS Section 6.6.5
SFN- 2024-002	6.6 Birch Lake System - Section 6.6.2.2 6.7 Springpole Lake, North Basin System - Section 6.7.2.2 6.8 Springpole Lake, Southeast Arm - Section 6.8.2.2 6.9 Local Inland Waterbodies - Section 6.9.2.2	"In undertaking the assessment of surface water effects the following indicators and measurable parameters were used Change in water quality Concentration of, metals, including: aluminum, antimony, arsenic, cadmium, chromium, cobalt, copper, iron, lead, mercury, molybdenum, nickel, selenium, silver, uranium, vanadium and zinc (mg/L) Concentration of anions, including sulphate (mg/L)" Nutrients (e.g., TP, NH3) and suspended sediment (TSS) are generally considered to be core water quality parameters but are not included in the Indicators and Measurable Parameters sections.	Please explain why nutrients and Total Suspended Solids (TSS) are not included in the parameters listed in the Indicators and Measurable Parameters sections.	Nutrients (total phosphorus, nitrogen species) are included in the water quality models for the final EIS/EA. The industry-standard water quality models used in the draft EIS/EA cannot accurately represent or predict TSS levels. This arises from the complexity of TSS sources and transport mechanisms, making it difficult to establish consistent relationships between model input parameters and TSS levels. Instead, in Ontario, mining operations must adhere to stringent regulatory requirements and environmental standards governing water quality, including TSS levels. FMG is committed to environmental protection and has strategically integrated comprehensive water management mitigation strategies for TSS into the Project's design, ensuring proactive measures to safeguard water quality and minimize the potential for	Partially resolved We look forward to reviewing the updated EIS/EA for more information on this topic, including the evaluation of TSS discharge criteria.	Water quality model parameters and standards (including TSS) are being updated for presentation in Section 6.7.5.2 (Analytical Methodology) and Appendix N-2 (Surface Water Quality Model Report) of the final EIS/EA.	EIS Sections 6.6 to 6.9 Appendix N-2

Environmental Impact Statement / Environmental Assessment Appendix C-6: Slate Falls Nation Comments on Baseline Study Reports and the Draft EIS/EA





Table C-6.1: First Mining Gold Response to Slate Falls Nation Comments on the Springpole Gold Project Baseline Reports and Draft Environmental Impact Statement/Environmental Assessment

ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
				environmental impact. Examples of these measures can be found in Section 6.7.3 of the draft EIS/EA.			
SFN- 2024-003	6.6 Birch Lake System - Section 6.6.4.2 Appendix N2 – Surface Water Quality Modelling Report – Section 4.0	"Elevated concentrations during operations in the PDA reflect the highly conservative nature of the water quality model results for both the base case and the upper-case geochemistry scenarios are thus considered to be overestimated and concentrations that are greater than water quality guidelines in the PDA are unlikely to occur." – Section 6.6 – 6.6.4.2 "Conservative model assumptions specific to the mass balance and assumed fugitive seepages from the CDF have resulted in the overestimation of concentrations of water quality parameters at model nodes proximate to the mine site (SW-03, SW-23, SW-24 and SW-25) in operations and closure." – Appendix N2 – Section 4.0 Model assumptions should be realistic but conservative (especially where there is considerable uncertainty). However, model assumptions should not be unrealistically conservative. There is little value in presenting predictions that are considered inaccurate because the model assumptions are overly conservative, then dismissing these results and their implications.	Please calibrate all models with realistic, conservative inputs and present and interpret the water quality predictions objectively so that modelling results are representative of future scenarios and can be confidently used to predict impacts.	The importance of calibrating models with realistic and conservative inputs to ensure accurate representations of future scenarios, while also ensuring potential effects will not be underestimated is acknowledged. Since the draft EIS/EA, the model cases have been refined to step back from the potentially unrealistic conservatisms that were originally included. For example, seepage capture at the CDF has been incorporated into the model for the final EIS/EA.	Unresolved It is noted that models often include sensitivity analyses which are often completed with higher concentrations of parameters of concerns and diminished assimilative capacity. Sensitivity analyses would help address modelling uncertainties and could help increase confidence that water quality will be maintained and use objectives protected. We look forward to reviewing realistic yet conservative modelling scenarios in the final EIS/EA.	FMG acknowledges the importance of addressing modeling uncertainties and increasing confidence in water quality outcomes. Where uncertainties occur, EA practice calls for conservative assumptions to be made. Modeling for the Project, including mass and water balance models, and has incorporated comprehensive sensitivity analyses. For the surface water quality model (Appendix N-2), these analyses included using higher concentrations of parameters of concern and scenarios with reduced assimilative capacity. This approach ensures that effects of the Project will not be underestimated.	EIS Section 6.6 Appendix N-2
SFN- 2024-004	6.9 Local Inland Waterbodies Section 6.9.4.2	"With the implementation of mitigation measures for dust, the effects of dust deposition on Birch Lake is predicted to be negligible in the context of total sediment loads in Project surface waterbodies" The text describes the predicted effect of dust deposition on Birch Lake; however, Section 6.9 is about the small waterbodies, not Birch Lake.	Please describe the predicted effect of dust deposition on the small waterbodies.	Dust was considered as an inhalation pathway in the draft EIS/EA. The potential effects of dust deposition on the small waterbodies will be discussed in the final EIS/EA.	Unresolved. We look forward to reviewing the final EIS/EA to better understand the potential impact of dust deposition on the aquatic environment. Additional questions or information requests: What are the physical and chemical impacts on the lakes and aquatic environment from	Aerial deposition in surface waters of Project-generated dust that has the potential to affect surface water quality and the effects from atmospheric deposition to water quality, and by extension fish and fish habitat, are calculated by the surface water quality model (Appendix N-2) and inform the effects assessment (Sections 6.6	EIS Sections 6.6 through 6.9
					dust? Has loading of particulate contaminants both directly deposited on the aquatic environment and flushed from the terrestrial environment during freshet / precipitation events been considered as an effects pathway in the final EIS?	through 6.9). The potential physical changes in aquatic habitat from dust deposition will be mitigated with dust suppression measures described in Section 6.2.4 of the draft EIS/EA. The Human and Ecological Health Risk Assessment includes consideration for	

Environmental Impact Statement / Environmental Assessment Appendix C-6: Slate Falls Nation Comments on Baseline Study Reports and the Draft EIS/EA





ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
						changes in sediment due to dust deposition that may migrate to surface water, and the results are being updated for inclusion in the final EIS/EA.	
SFN- 2024-005	Appendix N-2 – Surface Water Quality Modelling Report Section 2.3	"Where uncertainty exists, professional knowledge and experience was used to develop a conservative approach half the reported detection limit (i.e., 0.5*MDL) was employed for source terms if a chemical species was below the detection limit" While it is not uncommon to substitute 50% of the minimum detection limit (MDL) for non-detects, the conservative approach is to substitute 100% of the MDL.	The full MDL should be substituted for non-detects or the text of section 2.3 should be revised to acknowledge that substitution of half the MDL for non-detects is not a conservative approach.	The best practice for substitution of non-detects in statistical analyses and modelling of water quality is substituting half the method detection limit (MDL) for any non-detect values; this approach is consistent with available guidance documents regarding data handling (see reference list underlying). This half MDL substitution assumes that, on the average, all values between the MDL and zero could be present and that the average value of non-detects could be as high as half the detection limit. Non-Detects handled as MDLs is a highly conservative approach and assumes that the largest concentration of analyte that could be present is, but not detected. This method always produces a mean concentration which is biased high and is not consistent with available guidance. Through adherence to best practices in the EIS/EA, WSP has ensured compliance with regulatory standards while promoting consistency in data interpretation and reporting across various stages of the project life cycle and between provincial and federal jurisdictions relevant to the Project. The adoption of a standardized approach to handling non-detect values enhanced transparency but also bolstered the reproducibility of analyses presented in the EIS/EA. References: EPA. 1990. Guidance for Data Useability in Risk Assessment. EPA/540/G-90/008. https://www.epa.gov/risk/regional-guidance-handling-chemical-concentration-data-near-detection-limit-risk-assessments Metal Mining Technical Guidance for EEM Monitoring, Chapter 5 (2014-05-06) https://www.ec.gc.ca/esee-eem/default.asp?lang=En&n=AECTC481-18coffset=7&toc=show#s5.8.5.7	Ves, the federal guidance for EEM recommends substitution with half the MDL (text below). However, this is not the conservative approach (as stated in the text); the conservative approach is substitution with the full MDL. The text could state that the approach is not the most conservative but that it is consistent with federal guidance. "There are three common approaches to deal with values that are < MDL when analyzing data: set the value at the MDL, half the MDL, or 0. For the purposes of the EEM program, half the MDL is currently used for all data analysis and interpretation." - https://www.canada.ca/en/environment-climate-change/services/managing-pollution/environmental-effects-monitoring/metal-mining-technical-guidance/metal-mining-technical-guidance/metal-mining-technical-guidance-environmental-effects-monitoring/chapter-5.html	Clarity regarding data handling of non-detects will be included in Section 6.6; Appendix N-1, and Appendix N-2 of the EIS/EA.	EIS Section 6.6, Appendices N- 1, N-2





Table C-6.1: First Mining Gold Response to Slate Falls Nation Comments on the Springpole Gold Project Baseline Reports and Draft Environmental Impact Statement/Environmental Assessment

ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
SFN- 2024-006	Appendix N-2 – Surface Water Quality Modelling Report Section 2.4, Section 3.3, and Appendix C	"CORMIX model predictions indicate that the effluent concentration will be diluted to the maximum achievable dilution (vol/vol) of 16.3% within 1.3 m downstream of the diffuser. This distance additionally represents the regulatory mixing zone, i.e., applicable receiving environment guidelines are estimated to be achieved at 1.3 m downstream of the discharge point" – Section 3.3 "Vertical mixing is predicted to occur rapidly however full lateral mixing may not be achieved at this point. Model results beyond a downstream distance of 1.3 m have not been reported due to the dilution exceeding the limiting dilution" – Section 3.0 of Appendix C It is unclear how the maximum dilution could be 16% and the regulatory mixing zone 1.3 m, or how 1.3 m was arrived at (this is a very small mixing zone). There is clearly potential for considerably more than 16% dilution based on Figure 3-1 of Appendix C. Furthermore, 16% of the maximum effluent concentrations in Table 2-4 would not result in water quality meeting guidelines (e.g., for Al, 16.3% of 2.3 mg/L is 0.375 mg/L and for V, 16.3% of 1.2 mg/L is 0.196 mg/L). The meaning of the second quotation (above) from Section 3.0 of Appendix C is unclear. Lateral mixing was in fact modelled (the plume is depicted in Figure 3-1) and lateral mixing must be accounted for when determining the size of the mixing zone.	Please revise the reporting on the CORMIX modelling (including proposed effluent limits, if necessary) and/or the CORMIX modelling itself (if necessary) to address the aforementioned issues. Please provide a cumulative effects assessment of the effluent including on downstream spawning areas, bentics, and plants, over the life of mine.	Appendix N-2 is a technical supporting document for the surface quality model, the results of which inform the effects assessment (Section 6 of the main EIS/EA). The requested discussions of the effects effluent discharge on surface water and aquatics are provided in the effects assessment, which are presented in Sections 6.5 through 6.10 of the draft EIS/EA and are being updated for the final EIS/EA. The CORMIX model and associated documentation is being revised to support the final EIS/EA; additional clarification regarding the calculation of effluent strength and estimation of potential effluent limits will be included. Technical meetings have been proposed to present and/or discuss any clarification required in advance of the final EIS/EA.	Unresolved. No further comment at this time; we look forward to reviewing the revised CORMIX results and confirming dilution of effluent.	Technical supporting documentation for the surface water quality model, including CORMIX, are being updated for inclusion in Appendix N-2 of the final EIS/EA. Technical meetings have been offered to present and/or discuss clarification required. FMG looks forward to working with SFN on the review of the final EIS/EA.	Appendix N-2
SFN- 2024-007	Appendix, N Water (Surface) Quality Technical Support Documents, 4.10.4 – Effluent Discharge	Appendix N discusses the mixing and dilution of discharge from the project as CORMIX (Cornell Mixing Zone Expert, calculated mixing) is the mixing of treated effluent discharge to the south east arm of Springpole Lake. It is an assimilation capacity study done by Wood in 2022 of different mixing zones, including various parts of the channel of Springpole Lake. The analysis discusses the Efluent Treatment Plant, followed by a diffuser and then release into Springpole Lake.	What methods or alternatives are there to eliminate any contaminants (no dilution required) from going into the environment at discharge? Will the cost of the ETP options be included in the Feasibility Study?	Engineering studies to treat the water using methods that are achievable are ongoing, but sufficient study has been completed to have confidence that the final effluent will be compliant with the provincial and federal regulatory requirements. Yes, the cost of the ETP will be included in the Feasibility Study.	Partially resolved. We look forward to reviewing the updated EIS for more information. Additional questions or information requests: How will the engineering studies affect the final EIS and the final feasibility study? What is the minimum dilution required to meet receiving environment objectives for all parameters within the regulatory mixing zone. Specifically, does the 16.3% dilution achieve	Yes, the 16.3% effluent strength, as estimated by CORMIX modelling in Appendix N-2 of the draft EIS/EA, is sufficient and the parameters were less than water quality guidelines for the protection of aquatic life. As identified in the draft EIS/EA and other FMG responses in this regard, this assimilation study will be expanded upon and detailed further as part of permitting in accordance with applicable regulatory requirement,	EIS Section 5, Appendix N-2





Table C-6.1: First Mining Gold Response to Slate Falls Nation Comments on the Springpole Gold Project Baseline Reports and Draft Environmental Impact Statement/Environmental Assessment

ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
		Section 4.0 summarizes the effluent discharge by saying that this mixing study will be expanded upon and detailed further as part of the provincial approval process to determine acceptable discharge limits that will not compromise aquatic life in the receiving waters quote page 11 of appendix and N. The diffuser is in a narrow channel and the dilution will be 16.3%, an achievable dilution			this objective with a buffer to maintain compliance under a range of operating and environmental conditions?	including the MDMER, and the effluent concentrations required by the MECP to protect the receiving water and aquatic resources. SFN will also have further input on permitting after the EA process and through life of mine.	
SFN- 2024-008	Appendix N-2 – Surface Water Quality Modelling Report Section 2.3.2 – Table 2-1	according to the study. "In addition to the conservative Base Case, three additional scenarios to address potential model sensitivities were carried out to support the effects assessment. These included: Sensitivity 1 (Extreme Wet), Sensitivity 2 (Extreme Dry) and Sensitivity 3 (Upper Source Term Loadings). Details of each scenario are provided in Table 2-1." It is unclear from Table 2-1 how the extreme wet and extreme dry scenarios differ (all values are the same for both scenarios), or what is meant by "expected groundwater inflows".	Please provide a meaningful overview of the scenarios in Table 2-1, including more details for the data inputs, and a discussion regarding what scenarios are most realistic.	Please refer to response provided in comment #3. Additional documentation regarding data inputs and more details regarding the differences between sensitivity analyses will be included in the updated surface water quality model report for the final EIS/EA. Technical meetings have been proposed to present and/or discuss any clarification required in advance of the final EIS/EA.	Unresolved. No further comment at this time; we look forward to reviewing the final EIS/EA.	Thank you for your feedback. Additional documentation regarding sensitivity analyses is being updated for presentation in Appendix N-2 and Section 6.6 of the final EIS/EA. Technical meetings have been offered to present and/or discuss clarification. FMG looks forward to working with SFN on the review of the final EIS/EA.	EIS Section 6.6 Appendix N-2
SFN- 2024-009	Appendix N-2 – Surface Water Quality Modelling Report Section 2.4 – Table 2-3 Appendix A	In Table 2-3 and all tables of Appendix A) In Table 2-3, phosphorus is listed as being dissolved with a PWQO of 0.02 mg/L. The tables of Appendix A list "Orthophosphate, Dissolved". Wastewater assimilation studies conventionally consider total phosphorus. The PWQO of 0.02 mg/L applies to total phosphorus, not just dissolved phosphorus or orthophosphate, the latter of which is usually only a small fraction of the total. The guideline is erroneously listed as 0.002 mg/L in Table A-10.	Please list the sources of phosphorus and provide assimilation study data for total phosphorus not dissolved phosphorus or orthophosphate.	The updated surface water quality model for the final EIS/EA includes total phosphorus as modeled parameters.	Unresolved. No further comment at this time; we look forward to reviewing the final EIS/EA.	The surface water model for the final EIS/EA is being updated to include total phosphorus as a modeled parameter in Appendix N-2 (Surface Water Model Report).	Appendix N-2
SFN- 2024-010	Appendix N-2 – Surface Water Quality Modelling Report Section 3.0	"Water quality estimates are not sensitive to climate / flow sensitivity cases (Sensitivity 1 and Sensitivity 2) estimated by the water balance model (Wood 2022c)." The justification for not presenting the results of the flow sensitivity cases is that the water quality model is not sensitive to flow. In reality, concentrations are generally enriched under	Please provide an explanation for why water quality model estimates are insensitive to flow (given that this is not true in nature).	While there are some differences between wet vs. dry vs. average flow cases (Appendix M-2 of the draft EIS/EA), the influence of extreme flow conditions on how the Springpole Project interacts with the environment and water quality is very limited. This is largely attributed to the comprehensive water management planning and engineering which allows for consistency in the ability to store and reuse contact water in	Unresolved. We request that the final EIS/EA document include proof of the claim that modelled water quality does not differ appreciably based on flow scenarios. A reference is made to Wood (2022c), but that document is not publicly available (to our knowledge). To offer quantitative evidence, either key stats from	The reference for Wood (2022c) is the Receiver Water Balance Report that was included as Appendix M-3 in the draft EIS/EA. Results of sensitivity cases for the surface water quality model, relative to the base case, are being updated for inclusion in Appendix N-2 and	Appendix N-2

Environmental Impact Statement / Environmental Assessment

Appendix C-6: Slate Falls Nation Comments on Baseline Study Reports and the Draft EIS/EA





Table C-6.1: First Mining Gold Response to Slate Falls Nation Comments on the Springpole Gold Project Baseline Reports and Draft Environmental Impact Statement/Environmental Assessment

ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
		dry conditions and diluted under wet conditions for chemicals that originate from groundwater whereas parameters that originate from surface runoff (e.g., TSS) are enriched under wet conditions and lower during dry conditions.		processing, controlled effluent discharge rates, and adherence to strict effluent treatment quality limits – together these reduce the Project's sensitivity to changing flow conditions. Moreover, Birch Lake and Springpole Lake are large natural lakes and are found to behave as natural reservoirs, exhibiting low sensitivity to changes in flow regimes (as for example, compared to riverine systems). Large lakes will effectively buffer the effects of flow fluctuations by storing excess water during high-flow periods and releasing it gradually during low-flow periods. Consequently, they help maintain relatively stable water levels and volumes, minimizing the immediate impact of extreme flow events. Therefore, the decision to limit discussion of the results of these analyses in the draft EIS/EA was based on the findings of the models for this Project, which consider site-specific conditions and water management engineering/plans.	Wood (2022c) could be cited in the text, or the modelled water quality based on the Sensitivity 1 & Sensitivity 2 flow scenarios could be included as an appendix. Additional questions or information requests: Provide evidence that loading is consistent across flow/precipitation scenarios. The assumption requires validation.	summarized in the surface water effects assessment (Sections 6.6 though 6.9) of the Final EIS/EA.	
SFN- 2024-011	Appendix N-2 – Surface Water Quality Modelling Report Section 3 – Table 3-1	(Data in Table 3-1) It is not clear whether the parameters in Table 3-1 are total or dissolved.	It is not clear whether the parameters in Table 3-1 are total or dissolved. Please revise Table 3-1 so that the parameters are unambiguous.	Thank you for the observation. The values represent total metals, and this will be clarified in the final EIS/EA.	Unresolved. No further comment at this time; we look forward to reviewing the final EIS/EA.	The values represent total metals, and this will be clarified in Section 3 of the final EIS/EA. Technical meetings have been offered to present and/or discuss clarification required.	Appendix N-2
SFN- 2024-012	Appendix N-3 – Predictive Modeling of Open Pit Basin Water Quality Section 3.7	"Source terms relating to rock surfaces, including pit walls and fish habitat development area, were derived by Wood (2022c) from humidity cell release rates assuming 100% flushing. A scaling factor of 0.5 was then applied by Lorax to the loadings for these sources to account for: - A portion of the stored load that is generated will not be released to the open pit basin. This relates to the mineralogy of the secondary minerals that will form (some minerals are sparingly soluble), degree of crystallinity of secondary mineral phases, and/or their partially occluded nature; - Pit wall loadings account for a blastdamage zone that extends into the wall. Elements remobilized in this zone will migrate along fractures via molecular diffusion, which	Please provide a more comprehensive justification (or precedent) for the use of a 50% scaling factor for the source terms (e.g., via reference to other mining studies and/or the scientific literature).	The scaling factor of 50% for the pit wall source terms was based on first principles of mine waste weathering. The scaling factor considers well documented scaling effects for humidity cell testwork (e.g., Kirchner and Mattson, 2014; Day et al., 2014) and the effects of blasting on pit wall fracturing (Hustrulid, 1999). Even with a 50% scaling factor, the pit wall source terms are predicted to be conservatively high. This relates to two factors. The first relates to surface area considerations. Pit wall source terms were calculated from humidity cell test (HCT) leachate data, as normalized to the surface area of particles in the HCT. Area-normalized loads were then multiplied by the reactive surface area of the pit wall, which was assumed to be 50 m2 per 1 m2 of pit wall (to take into consideration the blast damaged and blast fracture zones within the pit walls). In reality, a portion of the calculated pit wall reactive surface	Partially resolved. Thank you for providing a thorough theoretical (first principles) justification for the use of a scaling factor; however, our initial request was justification for the particular value chosen (50%). The Kirchner and Mattson reference is to a presentation made by Lorax. The other references cited above are not provided in full (Day et al., 2014 and Hustrulid, 1999). To justify the 50% reduction in the source terms, please provide (complete) references to scientific literature of some kind (e.g., a literature review or meta-analysis) that provides empirical support for a 50% (or greater) scaling factor for geological source terms.	The Kirchner and Mattson (2014), Day et al. (2014) and Hustrulid (1999) full references are attached as Attachment SFN-12. This loading reduction factor was based on professional experience from similar projects and based on the First Principles outlined in the previous response. For pit lake modelling in support of the final EIS/EA we are adopting a more quantitative approach to pit wall source terms based on the following flow sheet. These methods will be described in detail in the final EIS/EA.	Appendix N-3

Environmental Impact Statement / Environmental Assessment

Appendix C-6: Slate Falls Nation Comments on Baseline Study Reports and the Draft EIS/EA





Table C-6.1: First Mining Gold Response to Slate Falls Nation Comments on the Springpole Gold Project Baseline Reports and Draft Environmental Impact Statement/Environmental Assessment

ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
SFN- 2024-013	Project Description Report Section 4.10.2 and 4.13	can take considerable time (years)." The 50% reduction in source terms is a large decrease. It is not clear how this specific value was determined based on the theoretical justification provided. While such processes may indeed act to mitigate loading, no attempt is made to justify the magnitude of the assumed reduction, for example, by referencing previous studies from areas of similar geology. "There will be excess contact water from the Project site that will need to be discharged to the environment. A conservative approach has been taken, and it has been assumed that an ETP will be required to remove metals and suspended solids from the contact water. Effluent treatment will be in addition to the cyanide destruction and metal reduction that will occur within the process plant and the natural physical and chemical processes that will occur within the site ditching and ponds. The ETP will be designed to produce an effluent quality appropriate for discharge to the environment in accordance with applicable regulatory requirement, including the MDMER, and the effluent concentrations required by the Ministry of the Environment, Conservation and Parks (MECP) to protect the receiving water and aquatic resources. Best available technologies that are economical achievable (BATEA) will be considered for the ETP to meet protection requirements" "Domestic sewage and grey water from the	Please provide information on the proposed Effluent Treatment Plant design and compare that to the best available technologies that are economically achievable. Also, please provide similar information on the proposed domestic packaged sewage treatment plan.	area will not contribute load to the pit, since some of the fractured surfaces will remain occluded and not exposed to infiltration waters. The second factor relates to secondary minerals. HCTs are run at a relatively high water:rock ratio that limits the development of secondary minerals. In the case of pit wall weathering, secondary minerals are more likely to form given the lower water:rock ratio with fractures. In this process, the formation of secondary minerals (e.g., ferrihydrite, Mn-oxides, Al hydroxide, carbonates, etc.) will serve to attenuate the release of major ions and trace elements. Hence, the loading rates calculated from HCTs are predicted to overestimate actual loads. Collectively, these effects relating to surface area and secondary mineral formation add considerable conservatism to the predictions. Kirchner, T. and Mattson, B. Scaling Geochemical Loads in Mine Drainage Chemistry Modelling: From Humidity Cell Leachate to Mine-Site Drainage Chemistry. 21st Annual BC MEND/MLARD Workshop, Vancouver, Canada, December 3-4, 2014. The effluent treatment plant considered at the Prefeasibility Study phase was a modular effluent treatment system. Additional engineering has optimized the water treatment strategy as follows: Biological process: based on the moving bed bioreactor concept, removes contaminants present in the wastewater. This concept is also used for cyanide destruction in addition to the in-plant destruction of cyanide in tailings using the sulphur dioxide / oxygen (SO2/O2) treatment process. The treatment process continues to the removal of metals. Arsenic removal is achieved by ferrous sulphate and iron co-precipitation principles. This is followed by sulphide precipitation for further metals removal with the dosing of sodium sulphide. The final stage involves flocculation, which includes a mixing tank before feeding to a clarification process. Following clarification, the fully treated effluent is confirmed to meet all applicable regulatory discharge criteria before being released	Unresolved Please provide information on effluent limits for both the Effluent Treatment Plant and sewage treatment plant based on ACS modelling. Additional questions or information requests: Will the design change as part of the Feasibility Study? See comment # 7 on ETP cost. Please describe the mercury, arsenic cyanide and other contaminants concentrations throughout the process such as from the processing plant through to the effluent discharge, see # 15. Will FMG provide bench scale test results to demonstrate expected COPCs in solution can be effectively treated to reach discharge criteria?	Final designs, construction methods, and operating practices for the ETP will be developed during feasibility and detailed engineering. Feasibility and detailed design may identify opportunities to further enhance / optimize environmental and technical performance of the ETP. This enhancement / optimization would be pursued with the intent that any potential design iterations would be improvements on, and within the current considerations of, the assumptions carried within the EA (i.e., within the scope of the Project as defined for assessment).	EIS Section 5
	I	I "Domestic sewage and arev water from the		I the Southeast Arm of Springpole Lake.			





Table C-6.1: First Mining Gold Response to Slate Falls Nation Comments on the Springpole Gold Project Baseline Reports and Draft Environmental Impact Statement/Environmental Assessment

ID Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
	packaged sewage treatment plant. The plant will produce an estimated 3.6 m3/hr of treated effluent. Treated effluent from the domestic sewage treatment plant will be discharged to the environment with the treated site effluent." No information is provided on the treatment technologies for the Effluent Treatment Plant or the packaged sewage treatment plan.		Domestic sewage and grey water from the accommodations complex will be treated by an appropriately sized packaged sewage treatment plant. The plant will produce an average 3.4 cubic metres per hour of treated effluent. Treated effluent from the domestic sewage treatment plant will be discharged to the environment with the treated site effluent.			
SFN- Section 3.3 2024-014	The company also mentions a sewage treatment plant, and an Effluent treatment plant. We are not sure whether these are combined	Please confirm how many water treatment plants will be on site.	There will be one effluent treatment plant and one sewage treatment plant onsite.	Resolved.		EIS Sections 5.12.5, 5.15
	discharge or whether there are two separate plants.					
SFN- 2024-015 Section 3.3, Appendix N	In dilution of effluent, FMG mention only 1 km from discharge point has been estimated for water quality downstream. Water quality concentration estimates for operations may increase related to the base case in peak operations. Water quality parameters are estimated to meet water quality guidelines at all assessment points/sites in south east arm Springpole Lake. FMG says on page 3.3 upon closure of the mine that runoff will possibly drain either to the north basin of Springpole Lake, or Birch Lake. What will be the water management system put in place now and upon closure? There are no details of the water contaminant levels at each stage of ore processing.	Provide a detailed water management plan or system with contaminant levels at each aspect of treatment / management.	The water management system and plans for water treatment are presented in the Surface Water Effects Assessment of the draft EIS/EA (Sections 6.5 through 6.9) as well as Appendix M-2 of the draft EIS/EA. Predictive modelling effluent quality and water quality for Operations and Closure was completed to support the draft EIS/EA (Appendix K-2, Appendix N-2). To summarize, an integrated water management system has been developed to for the Project, designed to collect and control all contact water from the stockpiles, the co-disposal facility, plant site areas, and water from the open pit. During Construction and Operations, contact waters will be conveyed to a centralized water management pond for management and monitoring, and ultimately recycled and used in processing. Collected contact water not re-used in processing will be treated at the effluent treatment plant (ETP) and discharged to the southeast arm of Springpole Lake, as needed to maintain a safe site water balance. Concentrations of contaminants of potential concern in effluent (i.e., effluent quality) will comply with applicable regulatory requirements including effluent qualities required by the Ministry of the Environment, Conservation and Parks to protect the aquatic life in the Springpole Lake (the receiving water). In addition to treatment at the ETP, cyanide destruction will be utilized to reduce cyanide concentrations in	Unresolved Additional Questions or Information requests: Is the removal of contaminants from process water and removal of contaminants from the tailings process linked to the 'centralized water management pond', considering that the tailings slurry, tailings treatment, processing plant and influent and CDF are reported as a" closed loop"? See Comment #16. Does the security estimate allow for the ongoing operation of the ETP?	The central water storage pond is part of the operational water management plan and primarily intended to manage contact water from the site facilities. Although it may provide an opportunity for sediment to settle out, it is not intended to treat process water; as that will be done at the Effluent Treatment Plant. We suggested and offer that it would be beneficial to have a meeting for FMG and WSP to provide a presentation on the entire process and explain the steps for water management. Also, FMG did host a webinar on Water Management and Treatment that explained this in November 2023 and encourages SFN to review the video and/or PowerPoint of the presentation on our EA website: https://experience.arcgis.com/experien ce/fb5518492b144cd7a4c4a4617683ee 22/page/Draft-EIS%2FEA-Summary-Materials-and-Presentations/ Further information on water management is being developed for inclusion in the Section 5.3.7 of the final EIS/EA.	EIS Section 5





	During the initial decommissioning and closure phase, the ETP will continue to be used if needed, or will remain available for contingency use. Water management infrastructure will be decommissioned when no longer needed. Monitoring programs will be further refined during			
g accommodate a sub aqueous and perched on peninsula scenario.	the permitting phase, and will include consultation and discussion with Slate Falls Nation. FMG anticipates that Slate Falls and FMG will establish a joint monitoring committee prior to construction where monitoring plans will be updated, reviewed, and implemented collaboratively. The co-disposal facility (CDF) is located on a natural area of land consisting of highly competent rock favourable for construction. Completed studies include an extensive geotechnical investigation of CDF site area foundation conditions including the development 28 boreholes and the excavation of 69 test pits. Results of the investigation show that the major portion of CDF dams will be constructed on a stable bedrock foundation, with remaining portions being constructed mainly on areas of shallow overburden. The south cell is designed to be water retaining and the embankments specifically designed to contain the full volume of PAG tailings and a water cover An elevation difference will be maintained between the north and south cells so that runoff and tailings water reports south cell primarily by gravity. The thickened tailings will allow slightly steeper beaches to be formed during deposition to promote passive drainage through the internal dam and into the south cell. The internal dam will not be lined to intentionally promote water to pass through to the south, while preventing PAG tailings from mixing with the north cell. The perimeter embankment of the south cell is designed to be lined with a geosynthetic liner to minimize seepage, and ensure the maintenance of a water cover. The liner will be	Unresolved Additional Questions or Information requests: Please provide elevation details and construction timelines. Are Engineered drawings (cross sections, plans, layout, etc.) currently available? See Comment #55. Additional information is required to better understand containment and stability.	The ultimate configuration design arrangement for the co-disposal facility (CDF) is currently undergoing review by the Independent Geotechnical and Tailings Review Board (IGTRB) that has been established for the Project. This will include the contours within and around the CDF. The final EIS/EA will show the cross-sections for both the north and south cells of the CDF. The perimeter embankments of the CDF will be raised through centreline construction (north cell) and downstream raise construction (south cell) during operations in advance of storage requirements, to a final estimated elevation of 485 masl for the north cell and 480 masl for the south cell. South Cell: The south cell will be contained by lined perimeter dams and the unlined internal dam to allow water transfer to the south cell. PAG tailings will be subaqueously deposited within the south cell maintaining a water cover to	EIS Section 5 Appendices It 1.6, V-1
tin te	ere will be managed and engineered to accommodate a sub aqueous and perched on peninsula scenario.	Provide details on how the south cell will be managed and engineered to accommodate a sub aqueous and perched on peninsula scenario. The co-disposal facility (CDF) is located on a natural area of land consisting of highly competent rock favourable for construction. Completed studies include an extensive geotechnical investigation of CDF site area foundation conditions including the development 28 boreholes and the excavation of 69 test pits. Results of the investigation show that the major portion of CDF dams will be constructed on a stable bedrock foundation, with remaining portions being constructed mainly on areas of shallow overburden. The south cell is designed to be water retaining and the embankments specifically designed to contain the full volume of PAG tailings and a water cover An elevation difference will be maintained between the north and south cells so that runoff and tailings water reports south cell primarily by gravity. The thickened tailings will allow slightly steeper beaches to be formed during deposition to promote passive drainage through the internal dam and into the south cell. The internal dam will not be lined to intentionally promote water to pass through to the south, while preventing PAG tailings from mixing with the north cell. The perimeter embankment of the south cell is designed to be lined with a geosynthetic liner to minimize seepage, and ensure the maintenance of a water cover. The liner will be	Provide details on how the south cell will be managed and engineered to accommodate a sub aqueous and perched on peninsula scenario. The co-disposal facility (CDF) is located on a natural accommodate a sub aqueous and perched on peninsula scenario. CDF site area foundation conditions including the development 28 boreholes and the excavation of 69 test pits. Results of the investigation show that the major portion of CDF dams will be constructed on a stable bedrock foundation, with remaining portions being constructed mainly on areas of shallow overburden. The south cell is designed to be water retaining and the embankments specifically designed to contain the full volume of PAG tailings and a water cover An elevation difference will be maintained between the north and south cells so that runoff and tailings water reports south cell primarily by gravity. The thickened tailings will allow slightly steeper beaches to be formed during deposition to promote passive drainage through the internal dam and into the south cell. The internal dam will not be lined to intentionally promote water to pass through to the south, while preventing PAG tailings from mixing with the north cell. The perimeter embankment of the south cell is designed to be lined with a geosynthetic liner to minimize seepage, and ensure the maintenance of a water cover. The liner will be	Provide details on how the south cell will be managed and engineered to accommodate a sub aqueous and perched on peninsula scenario. Provide details on how the south cell will be managed and engineered to accommodate a sub aqueous and perched on peninsula scenario. The co-disposal facility (CDF) is located on a natural area of land consisting of highly competent rock favourable for construction. Completed studies include an extensive geotechnical investigation of CDF site area foundation conditions including the development 28 boreholes and the excavation of 69 test pits. Results of the investigation show that the major portion of CDF dams will be constructed on a stable bedrock foundation, with remaining portions being constructed mainly on areas of shallow overburden. The south cell is designed to be water retaining and the embankments specifically designed to contain the full volume of PAG tailings and a water cover An elevation difference will be maintained between the north and south cells of the CDF. The perimeter embankments of the CDF will be raised through tentreline construction (north cell) and downstream raise construction (south cell for the south cell. The internal dam will not be lined to intentionally promote water to pass through the internal dam and into the south, with perventing PAG tailings from mixing with the north cell. The perimeter embankment of the south cell is designed to be lined with a geosynthetic liner to minimize seepage, and ensure





Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Who Addre
					permeability reinforced geosynthetic	
					clay liner (GCL). The GCL is to be	
					anchored to a concrete plinth	
					constructed on bedrock along the	
					upstream toe or anchored into suitable	
					low-permeability overburden. The GCL	
					lined south cell perimeter dam is to be	
					extended past the internal dam into	
					the north cell to limit seepage losses	
					from south cell pond. Bedrock	
					grouting is to be implemented as	
					required. The dam fill material includes	
					coarse to fine rock fill materials and	
					bedding materials for the liner. A	
					protection layer over the GCL is also	
					included.	
					North Cell:	
					The north cell will be contained by	
					unlined perimeter dams and internal	
					dam due to the competent foundation	
					conditions and the low hydraulic	
					conductivity. The north cell perimeter	
					dam is designed as a centreline raised	
					rockfill dam with suitable transition	
					and filter zones. Based on the	
					extensive geotechnical investigation of	
					CDF site area foundation conditions,	
					the dam is founded directly on	
					bedrock or competent sand and gravel	
					overburden.	
					As mining operations and supply of	
					PAG mine rock ceases in year 9,	
					spigotted NAG tailings will flow over	
					and cover PAG mine rock during years	
					9 and 10 forming a low permeability	
					permanent cover over the PAG mine	
					rock.	
					Stability and Seepage Analysis:	
					Stability analyses were performed for	
					long-term and 1 in 10,000-year design	
					earthquake loading conditions.	
					Material parameters for various zones	
					were assumed based on available site	
					investigation data, literature and	





ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
						design assumptions. The stability analyses results indicate that required minimum factors of safety criteria are	
						met or exceeded as required by CDA.	
						Steady state seepage analysis of the	
						typical section was performed	
						considering the ultimate dam closure	
						configuration. Hydraulic conductivity	
						parameters for various material zones were determined based on site	
						investigation data, literature and	
						design assumptions. Analyses indicate.	
N-	Water	Effluent Treatment Plant (in EIS) will have water	Provide details on the complete	In-plant effluent treatment using SO2/Air will be	Unresolved	Cyanide predictions (total and WAD)	EIS Section 5
24-017	Management	coming from pond waters and the	destruction of cyanide throughout the	used to destroy cyanide and to precipitate metals in	See also #60 and #22.	are being included in the water quality	
		development and Co-Disposal Facility, and the	entire water management system	the processing plant tailings effluent before it is		model for the final EIS/EA (Appendix	
	Section 2.1.4	process plant through a pond. Water will be	whether to the South Cell or to	discharged to the CDF. This is the standard proven	Additional Questions or Information requests:	N-2) and inform the effects assessment	
		coming from a pond near the processing plant.	Treatment plant and discharge point.	technology used to treat gold mine tailings effluents	Please map out the entire process of all	for surface water systems (expected to	
				at most mines in Ontario. The treated effluent will be	elements from the processing plant to the	be in Sections 6.6 through 6.9) in the	
		Post cyanide destruction, and cyanide		discharged to the CDF and the CDF will generally be	discharge into Springpole Lake, as an	final EIS/EA.	
		concentration in the south cell in the Co-		operated as a closed loop system.	example of influent to effluent to discharge		
		Disposal Facility (or Waste Storage			point and how the removal of contaminants	It is suggested that it would be	
		Facilityrock dump!)		Excess waters collected in the Central Water Storage	occur along the pathway.	beneficial to have a meeting for FMG	
				Pond (CWSP) will be treated in an Effluent Treatment Plant (ETP) before being released to the	How are contaminants disposed of once they	and WSP to provide a presentation on the entire process and explain the	
				environment. Within the ETP, a biological process	are removed from the water management system?	steps for water management. Also,	
				will be used based on the moving bed bioreactor	Note that concentrations in the response	FMG did host a webinar on Water	
				concept, where plastic carriers with attached biofilm	should include both total cyanide and WAD	Management and Treatment that	
				move freely in the water column and remove	(weak acid dissociable) cyanide, the form	explained this in November 2023 and	
				contaminants present in the wastewater. The moving	regulated by the CCME.	encourages SFN to review the video	
				bed bioreactor will be used for additional cyanide		and/or PowerPoint of the presentation	
				where the by-products are nitrate, carbon dioxide		on our EA website:	
				(CO2) and associated biomass.		https://experience.arcgis.com/experience/fb5518492b144cd7a4c4a4617683ee	
				The final stage of treatment involves flocculation,		22/page/Draft-EIS%2FEA-Summary-	
				which includes a mixing tank before feeding to a		Materials-and-Presentations/	
				clarification process. Following clarification, the fully		,	
				treated effluent will be confirmed to meet all			
				applicable regulatory discharge criteria before being			
				released to the environment at the final discharge			
				location in the southeast arm of Springpole Lake.			
				The ETP will be designed to produce an effluent			
				quality appropriate for discharge to the environment			
				in accordance with applicable regulatory			
				requirements, including the federal Metal and			
				Diamond Mining Effluent Regulations, and the			İ





ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
				effluent concentrations required by the Ministry of the Environment, Conservation and Parks to protect the receiving water and aquatic resources. A rigorous monitoring program will be in place to ensure effluent and receiver water quality is maintained.			
SFN- 2024-018	Section 4.1.	Regarding influent, FMG does not discuss nitrates or nitrates from the pit. Nitrates from blasting can penetrate the water table and or flow to environment.	How much nitrate is in the entire water management system, and how will it be handled?	Nitrogen species (nitrite, nitrate, ammonia) have been added to the predictive water quality model, and these results will be provided in the final EIS application. Effluent quality will comply with the MDMER as well as applicable provincial criteria, to be finalized during the provincial approvals process.	Unresolved. We look forward to reviewing the final EIS. Additional Questions or Information requests: What mechanisms are in place to ensure relatively complete combustion when blasting? What approaches are in place to ensure the project both maintains compliance with MDMER (and other applicable) criteria for nitrate as well as maintaining the trophic status by avoiding excessive nitrogen species enrichment of the receiving environment.	Nitrogen species (nitrite, nitrate, ammonia) have been added to the predictive water quality model, and these results are being generated for inclusion in the final EIS/EA (Appendix N-2, Water Quality Model). Predicted concentrations of nitrite, nitrate, ammonia inform the effects assessment for Surface Water VCs (Section 6.6 through 6.9) and aquatic resources (Section 6.10). Importantly, please note that effluent discharged from site will be protective of aquatic life and must adhere to all provincial and federal requirements, including the MDMER. This includes that effluent quality must be below MDMER effluent criteria for unionized ammonia, and meet ECA requirements, prior to discharge into the receiving environment.	EIS Sections 5, 6.6 through 6.9, Appendix N-2
SFN- 2024-019	Section 8	In flooding as precipitation increases, there's a requirement for increased water storage and potentially an increase in discharge of "water to the environment". FMG states that these waters will be treated to the environment. In section 8.3 they state that excess water will be managed by "managing effluent discharge" volumes and to retain excess storage capacity within the system. Water capacity of entire system in the event of extreme flood events.	What is the total water storage capacity of the entire system if effluent volumes change?	The water management strategy is to collect and contain site runoff in local collection ponds in each sub-watershed. All contact water that is not recycled by the process plant or mine operations, is ultimately treated prior to discharge to the southeast arm of Springpole Lake. The storage and treatment capacity of the Project site is designed to manage the Environmental Design Flood (EDF) without discharge of untreated water to the environment. For the operations phase, the EDF has been defined as a flood event with a 1:100 year return period. Events exceeding the EDF will generally be managed by an emergency spillway to ensure the integrity of the water management infrastructure. The spillway will be designed to safely convey the Inflow Design Flood (IDF) without overtopping the containments. During rainfall events greater than the 1:100 year storm event, water quality will be highly diluted and not expected to have an impact on the environment. Regardless,	Partially Resolved We look forward to reviewing the final EIS to better understand storage capacities. Additional Questions or Information requests: Is the emergency spillway connected back to the open pit?	During events exceeding the EDF, excess storm water from the CWSP, beyond the treatment plant capacity, would be managed by a controlled release to the open pit, which provides sufficient contingency storage, if required. Water from the open pit would then be pumped to the water treatment following the storm event.	EIS Sections 5, 8

Springpole Gold Project

Environmental Impact Statement / Environmental Assessment

Appendix C-6: Slate Falls Nation Comments on Baseline Study Reports and the Draft EIS/EA





ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
				excess storm water from the CWSP, beyond the treatment plant capacity, would be directed to the open pit as needed which contains more than sufficient contingency storage. Mining operations in the open would cease if required until the water was pumped back to the CWSP or the treatment plant. The total water storage capacity required is a direct function of the treatment capacity. With a treatment rate of approximately 1,000 cubic metres per hour (m3/hr), the total modeled EDF storage required is approximately 3 million cubic metres (Mm3). Design of the treatment plant and its design capacity will be completed a later engineering/design stage, and likely consider contingency factors such as the necessary maintenance periods for the selected			
SFN- 2024-020	Section 8.3.	FMG states that it has the ability to treat and release water to the south east arm of Springpole Lake "as needed" and within the constraints of the environmental approvals. Release of contaminants into Springpole Lake in accidents and malfunctions or water management system overload.	What is the threshold for when water needs to be released or treated to Springpole Lake?	site runoff will be collected and contained in local collection ponds in each sub-watershed up to and including the 1:100 year return period. Collected contact water not re-used in processing will be treated at the effluent treatment plant (ETP) and discharged to the southeast arm of Springpole Lake, as needed to maintain a safe site water balance.	Unresolved. The pond capacity and the ETP limits are not fully described in case of an accident or malfunction. More information on this matter is needed for the updated EIS.	A site-wide water balance was completed to estimate the quantity of mine site contact water expected to be managed during the construction, operations and the decommissioning and closure phases of the Project. The water management system includes the following ponds that are used to manage contact water: • CDF internal pond (approximately 1.4 Mm³ of storage capacity) • CWSP (storage capacity is approximately 0.7 Mm³) • Open pit watershed area (significant water storage capacity is estimated to be approximately 0.8 Mm³)	EIS Sections 5, 8, 9
						Designs and locations for ponds fully consider retaining distances from nearby infrastructure and natural waterbodies and maintain setbacks from these features. Appropriate factors of safety are used in the design and consider storm events. During operations, pond water levels will be operated in accordance with a robust water management plan and site-wide water balance. Efforts will be made to minimize stored water in ponds not	





ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
						needed to support water recycle to the process plant, to reduce the risk of the quantity of water released from an unlikely malfunction.	
						Should an environmental design flood / storm event occur, contact water can remain temporarily in the open pit if there is insufficient capacity remaining in the CWSP. The water would be pumped out of the open pit in the days following a storm event as capacity becomes available in the CWSP. The detailed engineering plans for the ETP will treat contact water at the Project site to allow the discharge of effluent to the environment that	
SFN- 2024-021	Section 3 Characteristics of alternatives of candidate sites; Section 6.6 Birch Lake System, Figure 6.6-2.	The site Is on the watershed boundary between Birch Lake and Springpole Lake. Appears that there are less detailed studies in EIS related to background data and mitigation to Birch Lake. There is a concern with the potential for Birch Lake to be contaminated from run off from uncontrolled contact water.	How much of an impact will the project have on Birch Lake given that the discussion to date is primarily on Springpole Lake.	The potential effects on Birch Lake are assessed in section 6.06 of the EIS/EA, including water quality and quantity and mitigation measures have been proposed where necessary. There are no direct discharges from the Project to Birch Lake during construction and operation; contact water and seepages are being collected and routed away from Birch Lake.	Resolved.	meets all regulatory requirements.	N/A
SFN- 2024-022	Section 4.10.2	There is no detail to understand how the ETF will function to protect water quality.	How will the Effluent Treatment Plant (EIS)/Water Treatment Plant (Prefeasibility Study) function before releasing contaminants (nitrates, cyanide) to Springpole Lake, and what will management of the waste rock, tailing slurry and PAG rock in the Waste Storage Facility (Prefeasibility Study)/Co-Disposal Facility (EIS) entail?	The preliminary ETP considered in the Pre-feasibility Study was a modular effluent treatment system. Additional engineering has optimized the water treatment concept as follows: - A biological process will be used based on the moving bed bioreactor concept, where plastic carriers with attached biofilm move freely in the water column and remove contaminants present in the wastewater. The moving bed bioreactor will also be used for cyanide destruction in addition to the in-plant destruction of cyanide in tailings using the sulphur dioxide / oxygen (SO2/O2) treatment process. The by-products are nitrate, carbon dioxide (CO2) and associated biomass. - The treatment process will continue to the removal of metals. Arsenic removal will be achieved by ferrous sulphate and iron co-precipitation principles. This will be followed by sulphide precipitation for further metals removal with the	Partially resolved. The ETP discussed in the EIS was preliminary and was a "modular" system in the Pre-Feasibility Study. See #13 ,17, 54. We look forward to reviewing the updated EIS for more updates. Additional Questions or Information requests: Details are required on the CDF, final design, integrity, timetable for construction, internal zoning of waste pile, and the final dimensions. Please indicate if results from bench scale testing are available, or that they be conducted if they have not been, to demonstrate effectiveness of the effluent treatment plant. Please indicate how the optimized water	Please refer to the responses to comment #15 and #16 for further detail on water management and the CDF. Consistent with anticipated provincial regulatory requirements for the treated effluent discharge, the detailed water treatment design and engineering will be advanced during the provincial permitting phase. Final effluent criteria and water management are prescribed by the Ministry of the Environment, Conservation and Parks (MECP) and associated Environmental compliance Approval for Industrial Sewage Works (ECA ISW).	EIS Section 5





ID Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
			dosing of sodium sulphide. Adjustment of pH will be controlled by dosing to alkaline conditions of 7.5 to 8 as needed. The final stage involves flocculation, which includes a mixing tank before feeding to a clarification process. Following clarification, the fully treated effluent will be confirmed to meet all applicable regulatory discharge criteria before being released to the environment at the final discharge location in the southeast arm of Springpole Lake. Mine rock and tailings will be managed in the CDF, with the NAG tailings co-located with and encapsulating the PAG mine rock in the north cell; and the PAG tailings stored in the south cell under a water cover to prevent acid conditions from	treatment concept will be used to update water modelling results.		
Draft Fisheries Offset Plan and MDMER Schedule 2 Fish Habitat Compensation Plan Section 8.1.2	"The proposed active filling rate would be adjustable to reflect between 10 to 15% of the inflows to Springpole Lake. Based on guidance provided by DFO (2013), Framework for Assessing the Ecological Flow Requirements to Support Fisheries in Canada and Locke and Paul (2011), A Desk-top Method for Establishing Environmental Flows in Alberta Lakes and Streams; a 10 to 15% reduction in instantaneous flows in unlikely to have detectable ecological effects on downstream habitat." Ecological low flows are a major consideration in water resources management and are made worse by climate change. The guidelines discussed are generic and are not based on features or functions in the study area. Suitable water takings from Springpole Lake and Birch Lake should be guided by an evaluation of the functionality of sensitive habitat features that could be impacted by water takings or decreased flow rates (e.g. spawning habitat) in the study area.	Please ascertain how site-specific ecological low flows can be established for the study area and used to guide the filling of the restored basin acknowledging that water levels are variable in the study area. SFN must be involved in the planning and implementation of any fish habitat off-setting / compensation planning.	developing, Please ascertain how site-specific ecological low flows can be established for the study area and used to guide the filling of the restored basin acknowledging that water levels are variable in the study area. SFN must be involved in the planning and implementation of any fish habitat off-setting / compensation planning.	Unresolved. Water levels are variable in the study area, and there is concern that additional reduction in flows in low water years could cause ecological impacts. A 10% reduction in flows, especially during low water years, could impact sensitive ecological features or functions. SFN requests that site-specific factors be considered during consideration of ecological low flows and not a generic % reduction value that is "unlikely to have detectable ecological effects on downstream habitat."	To assess the pit filling time under various climate conditions, wet and dry sequences were developed based on pro-rated historical flow records from the Sturgeon River at McDougall Mills Water Survey of Canada Station (05QA004). The dry year sequence was developed based on data from 1975 to 1981 and represents a 1st percentile flow sequence over the period. As a result, the pit filling time may be extended closer to 5 years. To accommodate for site-specific factors, water level monitoring will occur throughout the refilling process so that lake levels are maintained within natural variation. FMG anticipates that Slate Falls and FMG will establish a joint monitoring committee prior to construction where monitoring plans will be updated to reflect permit conditions, reviewed, and implemented collaboratively. Both Birch Lake and Springpole Lake are outlet controlled, and as such water levels are governed by the downstream lake outlet, rather than the inflows at specific locations within	Appendix F





ID Specific Reference	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addresse
				and Cat River systems.	
				As requested by SFN, the results of a	
				site-specific analysis for Springpole	
				Lake is provided below:	
				Springpole Lake levels and flows have	
				been measured using both continuous	
				and manual measurements for over	
				three years resulting is a detailed and	
				comprehensive site specific data	
				record for the lake including depth,	
				velocity and cross-sectional profiles of	
				the lake outlet and inlet. Using the	
				portion of the lake where the greatest	
				difference in flow is anticipated (Node	
				5, the narrows between the North	
				Basin and the Southeast Arm), a	
				dynamic wave routing model was	
				developed to assess potential Project	
				effects to lake level and velocity and	
				establish the pumping parameters	
				required to maintain natural variation.	
				While maintaining natural variation,	
				the largest flow alterations occur	
				during construction when the open pit	
				basin is dewatered via controlled	
				pumping and during active closure	
				when the reclaimed open pit basin is	
				refilled The model shows that under	
				existing conditions, the north basin of	
				Springpole Lake would generally flow	
				southward from the north basin to the	
				southeast arm, except in the spring	
				(March to May) when rising water	
				levels in the southeast arm of	
				Springpole Lake flow north into the	
				north basin.	
				HOLLI DASIII.	
				The assessment shows that during the	
				construction phase, the controlled	
				dewatering flow will result in an	
				average increase in water level of 0.032	
				metres (m), and an increase in velocity	
				of 0.001 metres per second (m/s). This	
				condition of increased flow would last	
				for approximately 6 months.	
				During the active closure, the	





ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
						controlled pit filling flow will result in an average decrease in water level in Springpole Lake of 0.063 m, and a reduction in velocity of 0.002 m/s during average climate conditions. For context, the natural annual fluctuation in the Springpole Lake water level is approximately 1 m, with the maximum fluctuation over the period of record being 2.1 m. As such, the 0.032 m and 0.063 m difference in water level due to the Project are well within the natural water level fluctuation ranges. An assessment of velocity and fish swimming ability was also completed using the site-specific data and analysis and shows that there would be no effect on the ability of fish to move through the connecting channel during all Project phases under all	
SFN- 2024-024	Springpole Gold Project Existing Conditions Report Fish Community and Habitat (FMG and C. Portt and Associates 2018)	Figures 28 and 30 The study areas (i.e., survey start and end points) to complete visual spawning surveys for Lake Trout and Lake Whitefish were different than Walleye and Northern Pike. No indication was provided why the study areas were selected.	Please indicate why the study areas were different for the visual spawning surveys and how they were selected.	Spawning area surveys were reflective of the species biology and the potential areas that would be impacted. Northern Pike spawn in shallow flooded areas that are inundated by high water during spring and early summer. As such only the suitable habitats were surveyed and shown in Figure 31 of Appendix O-1. Lake Whitefish have similar spawning habitats as Lake Trout and as such the survey areas are similar. Walleye spawning was determined to occur upstream in the Birch River based on the telemetry results for 2013 through 2015 and as such the 2015 and 2017 surveys were an additional effort to confirm there was no expected spawning use of the shoals within the area that would be isolated by the Project (the open pit basin). In all cases, the surveyed areas included as a minimum the areas within the proposed open pit basin and dike footprints.	Resolved Thank you for the clarification. This comment has been sufficiently addressed.	climate conditions.	Appendix O-1
SFN- 2024-025	Draft Fisheries Act Offset Plan and MDMER Schedule 2 Fish Habitat Compensation Plan Section 5.2.3	"A comprehensive fish removal program is proposed to minimize the intentioned death of fish associated with cofferdam construction and dewatering of the isolated basin. Although fish removals have become a common mitigation measure for projects impacting waterbodies, including large scale lake removals, each Project requires individual consideration as to the best methods and preferred objectives."	Please provide additional information describing the proposed fish removal program such as: - Will it be completed outside of sensitive life stages to avoid impacts to spawning fish or egg development? - Is it possible to remove the fish through non-lethal methods? - Can fish be effectively removed	The approach considers that the fish removal program would commence after June to comply with Provincial In-water timing constraints (Ministry of Natural Resources 2013. In-Water Work Timing Window Guidelines, 2pp.). Comments received from Fisheries and Oceans Canada have suggested that additional consideration be given to whether there would be advantages to isolating the basin during the spring spawning period as there is a period	Partially resolved Thank you for the detailed response. It is acknowledged that the methodology is dependent on the end use of the fish. The main challenge appears to be associated with effective removal of fish species at depth, especially as water is drawn down, fish are isolated and limited capture devices are	The potential for some fish to remain in the open pit basin is inherent to large fish removal programs, and will be mitigated as follows: Placement of isolation barriers in the spring when telemetry has shown that Lake Trout and Walleye move out of the north basin until early summer. This means isolating the basin during	Appendix F

Springpole Gold Project

Environmental Impact Statement / Environmental Assessment

Appendix C-6: Slate Falls Nation Comments on Baseline Study Reports and the Draft EIS/EA





Table C-6.1: First Mining Gold Response to Slate Falls Nation Comments on the Springpole Gold Project Baseline Reports and Draft Environmental Impact Statement/Environmental Assessment

ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	W Add
			from such a deep basin considering	when both Lake Trout and Walleye tend to leave the	available, especially for relocation. We	the typical in-water work constraint	
		FMG has indicated that they would like input	many are coldwater species that could	basin area to spawn. Isolating the basin during the	anticipate that, despite best efforts, many fish	period, but as identified by DFO may	
		from Slate Falls Nation on the fish removal	be in deep waters?	spring may reduce the number of Lake Trout and	will remain at the bottom of the lake as water	reduce overall fish presence during the	
		program, such as what to do with rescued fish,	 How will fish be safely removed as 	Walleye contained within the isolated basin. The	is pumped down and there will be limited	removal.	
		but additional information is required to	water levels are drawn down?	timing of the isolation and subsequent fish removal	means to safely capture the fish.	Fish removal would occur during	
		effectively consult.	 How will a sufficient level of effort 	will largely be dependent on the end use of the fish,		multiple seasons as the dikes are being	
		·	be quantified (i.e., will a population	and whether Indigenous communities would like to		constructed. Coldwater species such as	
			estimation equation be utilized)?	harvest the fish from the basin or if they prefer to		Lake Trout, Lake Whitefish and Cisco	
			·	move the fish to the remaining Springpole Lake.		can be targeted more intensely during	
						the spring and fall when the lake	
				The end use of the fish removed from both the		column is mixed and physicochemical	
				isolated dike area and the isolated north basin of		conditions (mainly dissolved oxygen,	
				Springpole Lake is to be further discussed with		water temperate and water density)	
				Indigenous communities and government agencies.		are uniform allowing these species to	ĺ
				Based on comments received to date, there has		utilized and survive in more shallow	
				been no suggestion that the communities would		lake areas. It is expected there will be	Í
				prefer to harvest the fish for consumption, and as		better capture of the species during	
				such it is currently assumed that the base case is to		this time and improved survival when	
				relocate the isolated fish into the remaining		released due to the uniform water	
				Springpole Lake. Given that the open pit basin is		column.	
				only 6% of the lake area (9% of lake volume) it is		Non-lethal fishing gear will be	
				expected that the relocation of the isolated fish can		prioritized such as minnow traps, and	
				be accommodated by Springpole Lake. The options		trap nets, but short set gill nets will be	
				to relocate, or harvest the fish both have merit as		used to sample at depth and within	
				described in "General Fish-out Protocol for Lakes		the pelagic zone.	
				and Impoundments in the Northwest Territories and		The majority of fish will be removed	
				Nunavut" (Tyson, J.D., W.M. Tonn, S. Boss, and B.W.		during dike construction prior to	
				Hanna. 2011. General fish-out protocol for lakes and		dewatering. Safe access to the remnant	
				impoundments in the Northwest Territories and		lake area can be maintained through	
				Nunavut. Can. Tech. Rep. Fish. Aquat. Sci. 2935: v +		development of a small trail along the	
				34 p.)		lakebed. If needed, pumping can be	
				3+ ρ. <i>)</i>		reduced as needed during capture	
				The intent would be to remove most of the isolated		efforts.	
				fish during dike construction such that only remnant		Overall, it is expected that the fish	
				fish would remain during dewatering. Access to the		removal program, with community	
				water would be maintained such that boat access		participation, will be successful. The	
				and fishing efforts could be continued as needed.		Fish Habitat Offset and Compensation	
				and fishing entries could be continued as needed.		Plan accounts for the fish productivity	Í
				Based on previous experience of the Project team		in the open pit basin such that any	
				with completing both whole and partial lake fish		mortalities will be ultimately offset by	
				removals, capture gear would target both large and		the final approved plan and fisheries	
				small bodied fish. Gear types and methods with		approvals.	
				lower mortality would be utilized if the intent is to			
				relocate the fish. Coldwater fish such as Lake			ĺ
				Whitefish, Lake Trout and Cisco would be more			
				sensitive to a rapid change in temperature and			1
				depth and as such consideration would be given to			1





ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
				targeting these species in the spring and fall when			
				lake turnover has occurred, and temperatures and dissolved oxygen are uniform through the water			
				column. Other cool water species (i.e., Walleye,			
				Northern Pike, Yellow Perch and minnows) could be			
				targeted during all seasons.			
				targeted during an seasons.			
				A quantitative depletion model would be used to			
				monitor the success and efficiency of the removal			
				program. The model would estimate the total			
				population of fish based on the declining catch and			
				estimate the percentage of the population that has			
				been removed. The end target for fish removal will			
				be determined in consultation with government			
CENT	5 651 1 4 4		DI 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	agencies.		6	FIG. 6
SFN-	Draft Fisheries Act	During the first year of the construction phase,	Please describe how the cofferdams	The timing of isolating the open pit basin will be	Unresolved	Construction of the dikes serves to	EIS Sections 5,
2024-026	Offset Plan and	two cofferdams (west cofferdam and east	will be constructed and removed, and	finalized during the permitting phase for the Project,	Coffeeday and the stine and the stine	isolate the mining area from the	6.10, Appendix
	MDMER Schedule	cofferdam) will be constructed to isolate a	how impacts to fish and water quality	depending on the end use of the fish as discussed in Comment 25 above. Currently, the base case	Cofferdam construction presents a major environmental impact, both directly to fish	remaining 94% of the lake. It is well	-
	2 Fish Habitat Compensation	portion of Springpole Lake in order that mining can occur. The cofferdams will overprint and/or	will be minimized. We note that inwater construction windows could be	assumption is that open pit basin will be isolated in	habitat and to adjacent and downstream	established from other similar projects that dikes are effective in this regard	
	Plan	isolate several existing spawning shoals for Lake	used (i.e., where feasible). Will these	the spring when the number of Walleye and Lake	water quality. Approximately 1 km long	and that the waterbodies immediately	
	Fiaii	Trout and Lake Whitefish in Springpole Lake	areas be isolated, and fish removed	Trout are limited in this area, and the fish will be	cofferdams will be built on top of 156 ha of	adjacent to the dikes and downstream	
	Section 8.1.7	(Section 4.0). The intent of the cofferdam	prior to introducing blast rock or	relocated into Springpole Lake.	aquatic habitat and associated biota. The	remain unaffected by mining activities.	
	Section 6.1.7	overbuild measure is to provide replacement	removing blast rock? Will the work be	Turbidity barriers will be installed on both sides of	construction areas will not be separated from	In addition, dikes incorporate proven	
		spawning and rearing habitats for Lake Trout	completed in the dry?	the dikes prior to construction and supplemented as	the rest of the lake, and the fish will not be	designs features on the downstream	
		and Lake Whitefish during the Project and into		needed to contain suspended sediment potentially	removed from the area.	side to support productive fish habitat	
		closure. "	Please also comment on the suitability	generated during dike construction.		including spawning habitat.	
			and effectiveness of utilizing blast rock		Turbidity barriers can limit the transport of		
		"The cofferdam face and built out shoals will be	for Lake Trout and Lake Whitefish	Once environmental protection measures are in	sediment-laden water, but barriers have	Turbidity curtains are a standard and	
		constructed of NAG rock blasted or crushed to	spawning shoals as opposed to more	place, the dikes will be advanced from the shoreline	limited effectiveness in mitigating impacts to	effective approach to isolating lake	
		the appropriate gradation."	naturally hydrologically weathered	as homogeneous rockfill embankments using rock	the surrounding waterbody, especially in	environments from active construction	
			rocky substrates.	sourced from onsite excavations such as the fish	water depths up to 14 m deep across such a	areas. The plan includes the use of	
		"Additionally, in-water construction works will		habitat development area or potentially other	large area that will be subject to major wind	multiple barriers, as needed, and	
		be completed to avoid spawning and egg		Project aggregate sources. The dikes will have a	and wave action. Turbidity barriers will also	ongoing monitoring of the adjacent	
		incubation periods where feasible to further		gravel core with larger protective rock as a shell	act as migratory barriers for aquatic	lake areas to confirm the efficiency of	
		reduce the potential for effects on fisheries and		(Appendix V of the draft EIS/EA). The cut-off wall will	organisms as biota try to leave the	the isolation measures. As the reviewer	
		fish habitat. "		be excavated into the granular core of the dike and backfilled with the cut-off wall using continuous	construction area as rock is dumped into the lake.	noted, there will be a requirement and	
		The proposed cofferdams are massive (i.e.		trenching methods. Once the dikes are completed,	lake.	an expectation to monitor the adjacent lake to ensure compliance with	
		heights of 11 – 17 m, crest width of 28 m and a		the turbidity barriers will be removed.	Additional Questions or Information requests:	environmental legislation and permits.	
		combined length of approximately 940 m).		are tarbiary barriers will be removed.	Will water quality be monitored outside the	The turbidity barriers are intended to	
		Cofferdam construction and removal		Following mining and reclamation of the open basin,	turbidity barriers to determine the impacts of	function as sediment control but also	
		represents a large potential environmental		passive groundwater infiltration and active filling	cofferdam construction or effectiveness of the	to prevent fish and other biota from	
		impact, but little information is provided on		from Springpole Lake will equalize the water levels	turbidity measures (e.g., CCME turbidity	migrating back and forth through the	
		how the cofferdams will be constructed or		on both sides of the dikes over a period of	guidelines of + 8 NTU short-term and +2	construction area into the isolated	
		removed.		approximately 5 years. Once sampling confirms that	NTU long-term)? Will those results be used to	open pit basin. This will enable the fish	
				water quality is acceptable, the dikes will be	govern cofferdam construction?	removal program to be completed	





ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
				regraded and follow a similar sequence as installation with the dikes first isolated with turbidity barriers. The dikes will be excavated to a minimum of 2 m below the average water level of Springpole Lake, but the resulting surface will intentionally be left irregular to increase habitat diversity. The surface material of the dike (traveled roadway) will be removed and disposed of on or off site. The remaining material to the designed depth will be pushed to the north and west sides of the dikes to increase the area of potential spawning shoal developed into the former open pit basin. Once the regrading of the dikes is complete, the turbidity barriers will be removed and Springpole Lake will be fully reconnected. Existing Springpole Lake shoal and rock ledge substrates consist of various sized angular shaped cobbles and boulders (see photos below) formed by freeze and thaw cycles which fracture bedrock. Although not weathered, the quarried material will be largely similar to the native substrates with respect to size and shape.	Cofferdam regrading also presents a major environmental impact. More information is needed on how sampling will be used to determine that water quality is acceptable in Springpole Lake and that the cofferdams can be regraded. Additional Questions or Information requests: Additionally, information is requested on how dykes will be regraded after mining, and whether turbidity barriers will be installed in an attempt to separate the work area.	without additional fish immigration from the remainder of the lake. Water quality including turbidity and total suspended solids along with other parameters will be measured both within the isolated basin and the adjacent lake. In the event that monitoring shows elevated turbidity or other parameters of concern, construction of the dikes would be paused or modified and additional turbidity barriers added as needed. At closure, regrading of the dikes would follow the same construction mitigation measures as the initial installation. Turbidity barriers would be installed prior to the regrading. At this time, surface material would be removed to ensure that any potential contaminants from the road surface are removed. The depth of this removal would be informed by sampling of the material prior to decommissioning. The remaining clean material would then be systematically excavated and placed to the north as additional shoal habitat on the upstream (open pit basin) side of the dikes. The regarding will ensure that a depth of two metres below normal water level is achieved for navigation. This depth could be increased if needed in certain areas.	
SFN- 2024-027	Draft Fisheries Act Offset Plan and MDMER Schedule 2 Fish Habitat Compensation Plan Section 5.3.1 Section 4: Project Description	"A water intake structure will be constructed in Birch Lake northeast of the ore stockpiles as shown in Figure 3-12. For the purposed of this draft Plan, we have assumed a footprint of 0.005 ha (approximately 50 m2) in Birch Lake would be altered." "A freshwater intake is proposed for Birch Lake, a very large waterbody located close to the primary fresh water use locations (process plant and accommodations complex). The	The freshwater intake will likely result in an ongoing death of fish. The biomass of fish that are killed should be included as an ongoing impact and offset following a habitat productivity type approach. Please also indicate how those impacts will be mitigated and monitored.	The proposed intake location will extend into Birch Lake to a depth greater than 9 metres. This will reduce the interaction of the intake with larval and juvenile fish which are expected to favour the more shallow littoral areas. For the purpose of assessing potential effects the current DFO Interim Code of Practice for End-of-pipe fish protection screens for small water intakes in freshwater was considered (https://www.dfo-mpo.gc.ca/pnw-ppe/codes/screen-ecran-eng.html).	Resolved. Thank you for the response. We consider this issue resolved.		EIS Sections 5.12.4, 6.10

Springpole Gold Project

Environmental Impact Statement / Environmental Assessment

Appendix C-6: Slate Falls Nation Comments on Baseline Study Reports and the Draft EIS/EA





Table C-6.1: First Mining Gold Response to Slate Falls Nation Comments on the Springpole Gold Project Baseline Reports and Draft Environmental Impact Statement/Environmental Assessment

ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
	Section 4.10.1.3	intake will be located and designed to minimize environmental effects, including potential fish entrainment and impingement. Fresh water will be pumped from Birch Lake to water storage tank(s) until needed. Approximately 1.1 Mm3/year of fresh water will be required from the process plant and an additional 0.03 Mm3/year for the accommodations complex on average over the Project life." It is unclear how the risk of impingement or entrainment of fish from the freshwater intake has been quantified and incorporated into the assessment of impacted fish habitat.		The Code describes best practices for the design, installation and maintenance of small water intakes with flow rates up to 0.150 cubic metres per second (m3/s). Currently, the Birch Lake water average intake flow rate is proposed to be approximately 0.03 m3/s, which is at the low end of the flow range for the Code. Typically, the deterrent to entrainment for a small water intake such as the Birch Lake water intake would be the use of a screened structure (box, cylinder or drum), which is consistent with the Code. Following the interim Code is expected to mitigate potential entrainment of fish at the lake interface; however, regular cleaning and inspection of screens at the plant site would identify any deficiencies with the measures from the presence of	•		Addressed
SFN- 2024-028	Section 4.3: Project Description	"The Project site is an active mineral exploration area and there are a number of exploration-related facilities and infrastructure components currently present on the site, including: a small exploration camp, office, storage facilities and yard areas." "Mineral exploration of the Project property has been carried out during two main periods: from the 1920s to 1940s, and from 1985 to present. During the most recent period, exploration activities have included geological mapping, geophysical surveys, diamond drilling and trenching. In 2015, the property was acquired by what is now FMG." Activities completed during the exploration phase, such as drilling, trenching, and sumps, can have major environmental impacts but are generally poorly described. Potential downstream impacts such as changes to water quality or declining fish health have been observed and are of concern to SFN.	Please provide a more comprehensive description of completed and planned exploration activities (to help understand cumulative effects), list mitigation measures implemented, and describe if existing monitoring programs have been used to assess related impacts from exploration activities.	fish or fish parts. Currently present mining and exploration projects, including the Springpole Exploration Project, are considered in the cumulative effects section of the draft EIS/EA (Section 7, Table 7.2-3). The baseline conditions represent any potential impact that exploration activities have had and this is considered in the assessment of potential effects on all valued components including the water quality in Birch and Springpole Lakes, and changes in fish health. Throughout FMG has been committed to maintain a small footprint while still ensuring safety for staff and visitors while exploring the property and conducting baseline investigations for the Springpole Gold Project. The activities including the camp and exploration areas are considered in the baseline conditions of the EIS/EA, and the effects assessment. The existing site and infrastructure will be overprinted and incorporated into the proposed Project in its entirety and would therefore be a direct effect rather than a cumulative effect. Mitigation measures include following conditions and monitoring associated with existing site permits and approval, corporate policies and good work practices.	Unresolved It is unclear what exploration activities have been completed and are planned, what mitigation measures have been implemented to minimize exploration phase impacts, and if monitoring has been completed to assess the impacts of exploration activities. SFN members have noticed downstream environmental impacts such as fish kills, and algal blooms, and it is unclear if exploration activities were a causative factor. Effective mitigation and monitoring during exploration could also provide an example of FMG's commitments to environmental stewardship, or a lack thereof.	Exploration is carried out in compliance with all permit and regulatory requirements. Comprehensive monitoring has been undertaken for several and demonstrates high level of environmental protection. The Project has taken over 720 water quality samples from Birch Lake and Springpole Lake since 2011, including metals and nutrients, at numerous stations on a monthly basis to ensure that changes in water quality could be detected. Exploration activities have followed rigorous environmental standards and protection measures as shown by water quality results, FMG would be pleased to continue working with Slate Falls Nation to ensure that continued monitoring can aid in understanding environmental performance and status.	N/A
SFN- 2024-029	Local Inland Waterbodies Section 6.9.1	"The scope of baseline monitoring has varied slightly from year to year, reflecting site accessibility and updates in Project design" The quote referenced is reflective of all the aquatic baseline monitoring programs. SFN	Please provide a table summarizing sample location, timing, methods utilized and rationale for site selection and sampling methods employed. Also indicate if data collected is	Baseline data collection has been undertaken since 2009 in Birch Lake, and since 2011 in Springpole Lake and adjacent waterbodies. To better clarify and consolidate the completed studies over time, a tabulated chronological record of the sampling efforts has been prepared along with the specific	Unresolved A tabulated chronological record of sampling efforts was not included in Attachment SFN-29. It is also unclear if the response will include rationale for method selection and	The tabulated chronological record of the sampling efforts along with the specific location of the collected data in the completed or pending documents is included as Attachment SFN-29b. The intent of the attachment	EIS Section s 3, 6.9, Appendix N-1, O

Environmental Impact Statement / Environmental Assessment

Appendix C-6: Slate Falls Nation Comments on Baseline Study Reports and the Draft EIS/EA





Table C-6.1: First Mining Gold Response to Slate Falls Nation Comments on the Springpole Gold Project Baseline Reports and Draft Environmental Impact Statement/Environmental Assessment

ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
	Reference	questions whether these monitoring methods 'varied slightly.' Baseline data collection has occurred over a long timeframe and a variety of methodologies have been employed to characterize water quality, aquatic biota (fish, benthic invertebrate and zooplankton) and aquatic habitat. It is difficult to follow the process as changes to methods have not been well explained, there is little justification provided for site selection or related discussion of sampling purpose.	sufficient to determine the presence of future impacts apart from natural variability through consideration of statistical considerations (e.g., power analysis) and reference to related guidance (e.g., Environmental Effects Monitoring).	location of the collected data in the completed or pending documents (Attachment SFN-29).	site selection, or a discussion regarding power analysis and related regulatory guidance will be provided.	is to direct the reviewers to individual documents and figures where this information is provided. The variability inherent to biological data is expressed in graphs and charts provided in the baseline documents. Considerable data collected to date shows strong similarities between the various lake basins and lakes. The period of record summary table for surface water quality is provided in Appendix N-1 of the draft and final EIS/EA. The baseline dataset for this Project is very extensive and goes well beyond what is typically available at this stage of project development in Canada and complies with applicable guidance and regulatory requirements regarding baseline data collection and data availability.	Addressed
SFN- 2024-030	Section 12 Follow- up and Monitoring	FMG states that Monitoring Programs will be used to evaluate the effectiveness of the mitigation measures. They also go on to say that the environmental monitoring and management plans will be developed prior to the construction that incorporate feedback from the environmental assessment and subsequent permitting processes (page 12.1). See also page 12–2, where FMG states that details will be developed based on conditions This should be done as part of the approvals not as a government condition nor permit requirement. Appears that FMG are going to wait for approval first then put the necessary programs in place.	Please provide Monitoring and Management Program with appliable triggers / thresholds in place before application/Project approval.	Follow up and monitoring programs will be included in the final EIS/EA and are anticipated to be generally consistent with the extensive monitoring program initiated for the EA. The monitoring programs in place today have been designed with future phases of the Project in mind to help facilitate long term data continuity The challenge with further elaborating on the details of monitoring beyond the current programs is that the conditions of EA approval address monitoring requirements which need to be reflected in plan updates prior to construction or operations as applicable. Once conditions are known monitoring programs will be further refined during the permitting phase, and will include consultation and discussion with Slate Falls Nation. FMG anticipates that Slate Falls and FMG will establish a joint monitoring committee prior to construction where monitoring plans will be updated, reviewed, and implemented collaboratively.	Unresolved. We look forward to reviewing the final EIS for more updates.	The monitoring programs will be based on the extensive monitoring programs currently in place for the Project. These programs will be refined based on conditions of EA and permit approvals. As noted, FMG anticipates that Slate Falls and FMG will establish a joint monitoring committee prior to construction where monitoring plans will be refined as mentioned, reviewed, and implemented collaboratively.	EIS Section 12
SFN- 2024-031	Section 1 Alternatives Waste Rock Facility	FMG states that providing benefits to the local and regional indigenous economies of north, western Ontario is objective of the company. Overall, in the description of the project, there will be 80 Mm³ of tailings +115 Mm³ of mine	Please explain why there is different terminology in the EA/EIS versus the Pre-Feasibility Study.	The Pre-Feasibility Study (PFS) was published in January 2021 by AGP Mining Consultants Inc. with the purpose of presenting conceptual engineering and financial aspects of the Project to evaluate the viability of the Project. The draft Environmental Impact Statement/Environmental Assessment	Partially Resolved. Thank you for the response, SFN will continue to attempt to reconcile differences in terminology between older and more recent documents.	Thank you, please let us know if there are any further specific questions or clarifications about the terminology required.	N/A

Environmental Impact Statement / Environmental Assessment

Appendix C-6: Slate Falls Nation Comments on Baseline Study Reports and the Draft EIS/EA





Table C-6.1: First Mining Gold Response to Slate Falls Nation Comments on the Springpole Gold Project Baseline Reports and Draft Environmental Impact Statement/Environmental Assessment

ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
		rock. Check consistency as often in volume and or tonnes, also whether pre-Feasibility Study and EIS are consistent in terminology and project design.		(EIS/EA) was released in May 2022, prepared by Wood (now WSP consulting) with the lens of assessing and improving the Project from and environment and socio-economic perspective. The difference in time, understanding of the Project, authorship, purpose and audience is the reason for different terminology. Terminology used in the EA process will be adopted going forward for most future studies.			
SFN- 2024-032	Section 1.2	The NAG (non-acid generating rock) rock will be 98 M m³ which will be used in aquatic habitat, construction, and restoration in the pit. Not clear how this volume will be distributed or when.	How will FMG monitor the movement of NAG to confirm that there is no mix with potentially acid generating (PAG) rock?	A detailed mine block model is developed during the mine planning process to ensure a good understanding of material volumes generated by the pit including NAG and PAG rock. A mine rock segregation plan will be developed prior to start of construction and operation to ensure proper identification and segregation of rock during construction and through operations. Monitoring of the plan will occur by a professional geologist during the extraction process to identify rock types. One common method to corroborate and calibrate the mine plan and mine rock plan in an adaptive manner is to analyze drill cutting from the blast holes to provide a final confirmation of the material being extracted. This and other measures will be considered in developing the mine rock segregation plan.	Partially resolved While drawings exist, the mine rock segregation plan is incomplete. We look forward to getting more complete information in the updated EIS.	The final EIS/EA will provide details on how the mine rock is managed and identify mitigation and/or design measures to demonstrate there will be minimal or no potential environmental effects. FMG looks forward to working with SFN on the review of the final EIS/EA.	EIS Sections 5,
SFN- 2024-033	Section 1.3.1	FMG states that arsenic may be a parameter in the mine of "potential interest." The company states that 40% of the samples contain arsenic, which exceed and combining with the water exceed provincial water quality guidance. In section 1.3.2, 20% of the tailings in the 80 Mm3 are PAG (potential acid generating) waste rock. Arsenic in water management system.	Please provide a model of arsenic concentration throughout the water management system and how it will be monitored within the ETF and the receiving environment.	A very thorough evaluation of potential impacts on water quality, including arsenic concentrations, via quantitative water quality modelling has been conducted. To date, no adverse effects to water quality due to arsenic levels are expected during all phases of the Springpole Gold Project. These models are being updated for the final EIS/EA. FMG is confident in its ability to safeguard surface waters and mitigate any potential impacts to surface water quality. We support SFN being involved in the development and implementation of monitoring activities. Monitoring programs will be further refined during the permitting phase, and will include consultation and discussion with Slate Falls Nation. FMG anticipates that Slate Falls and FMG will establish a joint monitoring committee prior to construction where monitoring plans will be updated, reviewed, and implemented collaboratively.	Unresolved. More information is needed on the contaminant levels from the entire system, including bedrock, plant processing plant slurry, influent, effluent and discharge. Operationally, this is typically addressed through a well-defined Surveillance Network Program (SNP). The SNP can be used to trace where concentrations are trending upwards and manage the source at that point. Additional Questions or Information requests: Please provide a detailed SNP and include adaptive management measures if concentrations begin to deviate from what is expected in the treatment plant influent.	See the response to SFN-20 for a description of the system. A detailed monitoring program is in place for the Project that will be refined to reflect conditions of approval. FMG anticipates that Slate Falls and FMG will establish a joint monitoring committee prior to construction where monitoring results will be reviewed.	EIS Sections 5, 6.5 through 6.9, Appendix N (all).

Environmental Impact Statement / Environmental Assessment

Appendix C-6: Slate Falls Nation Comments on Baseline Study Reports and the Draft EIS/EA





ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
				with the agreed upon effluent limits established during permitting, Typically, the ETP operators monitor and test the water inside the ETP daily (including flow rate and volume). The ETP discharge line is typically sampled 3 times a week for metals (including arsenic). The surface water monitoring program (which includes sampling for arsenic among other parameters) was conducted monthly for the baseline reports and the frequency will be the same during construction, operation and closure phases. Water quality results will be shared with SFN and discussed during FMG-SFN joint environment committee meetings.			
SFN- 2024-034	Section 5.8 Tailings storage alternatives	The site had to be less than 15 km from the processing plant. There is also the issue of haulage and infrastructure, which, according to the company would not present a practical solution. FMG states that in their "candidate sites also look at the overprint of water frequented by fish". How overprinting of water frequented by fish get considered in the site selection of the current site. Note that SFN has not been engaged satisfactorily in the assessment of alternatives for this project.	Why was the fish offset selected adjacent to the east side of the open pit when other sites may have been more suitable?	The fish habitat development location was selected based on topography and proximity to the site and considered site development sequencing to reduce the overall site footprint by enabling the location to be co-located with a quarry for construction material.	Unresolved The assessment of alternatives requires SFN input. SFN have requested a meeting to better understand how alternatives were assessed.	A meeting was held with SFN on fish habitat on January 19, 2024, and a second meeting was held with SFN on June 12, 2024 regarding the alternatives assessment. Feedback provided by SFN is considered in the evaluation of alternatives. During the meeting, SFN asked FMG about the Wenasaga Road extension and how the current preferred mine access road was chosen in consideration of other existing road networks. FMG clarified that the Wenasaga road in the only road in proximity to the mine site. Some regional roads not showing on the alternatives assessment figure are included in Section 7 Cumulative Effects of the draft EIS/EA and that the final EIS/EA Section 4 Alternatives Assessment can include more details regarding regional roads, however these would not support mine site access. Additionally, FMG reiterated that the route utilizing the Wenasaga Road is preferred because utilizing existing infrastructure minimizes the need for additional clearing and linear disturbances.	EIS Sections 2, 4, 5
						In response to SFN comments on the draft EIS/EA and ongoing dialogue, FMG has optimized the transmission	





ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
						line as requested by SFN and further	
						optimized the access road corridor	
						alignment with the transmission line to	
						reduce the overall footprint. Baseline	
						data collection has been ongoing since	
						the draft EIS/EA and will inform the	
						updated alternatives assessment in the	
						final EIS/EA.	
						During the meeting, SFN asked how	
						risk factors were used to inform the	
						alternatives assessment and how these	
						risks would be mitigated. FMG clarified	
						that the alternatives assessment	
						includes criteria and indicators related	
						to public safety and security and land	
						use risks, as well as ensuring that the	
						component can be reclaimed. The	
						alternatives assessment (Section 5 of	
						the draft EIS/EA and will be Section 4	
						of the final EIS/EA) uses a comparative	
						approach with explanations provided	
						to support decisions on preferred	
						options. The multiple accounts analysis	
						for the mine waste alternatives	
						assessment (Appendix E of the EIS/EA)	
						does use a weighted approach in	
						accordance with Environment and	
						Climate Change Canada guidance.	
						Climate Change Canada guidance.	
						Since the draft EIS/EA, FMG has	
						convened the Independent	
						Geotechnical and Tailings Review	
						Board (IGTRB) to review information	
						regarding the CDF, tailings and the two	
						dikes and will include	
						recommendations in their final report	
						along with responses from the	
						engineering team addressing	
						recommendations. This information	
						will be available to SFN.	
N- 5 24-035	Section 2.1.5	There is some in storage in the pit, but it is not available until 67 Mm3 have been mined to	Does FMG plan on proceeding with an	There are no plans to proceed with an underground	Resolved	The lower resource depth to date	N/A
24-035			underground mining operation	mining operation beneath the open pit.	Additional Constinue as Information	averages 380 m below surface, with	
		allow for pit storage. The pit storage was also	beneath the open pit?		Additional Questions or Information requests:	the deepest modelled block occurring	
		limited as to not to condemn (limit future			What is the depth to date of the known	at 490 meters below the surface.	
		access) future resources.			mineral resources (current exploration		
					program)?		





Table C-6.1: First Mining Gold Response to Slate Falls Nation Comments on the Springpole Gold Project Baseline Reports and Draft Environmental Impact Statement/Environmental Assessment

Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
	Quite possible that the operation could go underground in the future, waste rock cannot be stored on top of the development.					
Section 4.7 and Section 5 Page 5.3, Table 5.1	The site was selected to avoid double handling, and to reduce or minimize the project footprint. The co-mingling (or layers) of the tailings and waste rock would provide for filling voids in the rock storage, hence the name.	How can FMG prevent the south cell and north cell from mixing of PAG and NAG waste rock piles?	An internal dam will be located between the north and south cells to maintain separation. See the response to comment #16.	Partially resolved More engineering details are needed to provide confidence in the assessment as requested under Comment #22.	Please refer to response #16.	EIS Section 5
Section 2.1.6.2,	entire waste rock pile to be contaminated.	Please confirm the amount and	Section 4.4.4 of the draft EIS/EA provides a summary	Unresolved	FMG looks forward to working with	EIS Section 5,
Co-Disposal Facility for waste rock location	NAG or non-acid generating approximately 80% by weight of the rock It appears that the company alternatives focused on ARD (acid rock drainage), and the notion of residual chemicals in the tailings, cyanide, mercury, etc.	composition of residual chemicals in the tailings and acid generating waste rock.	of the geochemistry of the mine rock and Section 4.6.5 provides a summary of the tailings geochemistry. As a result of ongoing geochemical assessment, volumes and compositions are being updated in the final EIS/EA, and will be supported with the results of the most recent geochemistry evaluation work that will be appended to the final EIS/EA. In addition, the mine site water quality modelling report (Appendix K-4 of the draft EIS/EA) provides the results of the estimated mine water quality during operations and closure, and will be updated for the final EIS/EA. Geochemical monitoring will continue during life of mine to inform model updates and refinements to	We look forward to reviewing the updated EIS/EA for additional information.	SFN on the review of the final EIS/EA.	Appendix K- 1.1, K-1.2, K- 1.3
Section 3.22 Alternatives	The waste rock will be 70 m high will vary between 361 ha to an overall 507 ha with a storage of 117 M m ³ . Comparison throughout reports on volumes of Co-Disposal Facility.	Are the volumes and other aspects / terminology similar when the Pre-Feasibility Study and EA/EIS are compared (reconcile volumes, weight, size between PFS and EA/EIS documents)?	As is common in the planning stages of mining projects, there has been ongoing engineering to optimize the mine plan and the associated infrastructure such as the co-disposal facility since the preparation of the Pre-Feasibility Study, The volume of various mine materials in the draft EA are generally consistent with the PFS however refinements will be considered in the final EIS/EA based on additional mine plan work since the draft	Unresolved We look forward to reviewing the updated EIS/EA for additional information.	FMG looks forward to working with SFN on the review of the final EIS/EA.	EIS Section 5
Section 4.7 Co-Disposal Facility	The Project will have its own water collection and it's own contact water management which will ultimately go to a collection pond 3 km from the waste rock site contact will be piped to reclaim these waters. Water management system details on the	What thresholds exist to determine reclaiming the contact waters that need treatment? Will the chemicals continue to concentrate as recycling proceeds? How will FMG manage any	Internal contact water sampling will occur at the CDF reclaim pond and the CWSP to monitor water quality and quantity. This information will be used to update the water balance and water quality modelling predictions during life of mine which will guide operational decisions regarding the treatment	Unresolved We look forward to reviewing the updated EIS/EA for additional information on water cycling in the updated water balance and water quality models.	The mine site water balance and water quality models are being updated for inclusion in Appendix M-2 and K-4 of the final EIS/EA, respectively. Technical meetings have been offered to present and/or discuss clarification required.	EIS Section 5, 12 Appendices M- 2, K-4
	Section 4.7 and Section 5 Page 5.3, Table 5.1 Section 2.1.6.2, Co-Disposal Facility for waste rock location Section 3.22 Alternatives Section 4.7 Co-Disposal	Reference Quite possible that the operation could go underground in the future, waste rock cannot be stored on top of the development. The site was selected to avoid double handling, and to reduce or minimize the project footprint. The co-mingling (or layers) of the tailings and waste rock would provide for filling voids in the rock storage, hence the name. Co-mingling has the potential to cause the entire waste rock pile to be contaminated. FMG states that the tailings are predominately NAG or non-acid generating approximately 80% by weight of the rock It appears that the company alternatives focused on ARD (acid rock drainage), and the notion of residual chemicals in the tailings, cyanide, mercury, etc. Section 3.22 Alternatives The waste rock will be 70 m high will vary between 361 ha to an overall 507 ha with a storage of 117 M m³. Comparison throughout reports on volumes of Co-Disposal Facility. The Project will have its own water collection and it's own contact water management which will ultimately go to a collection pond 3 km from the waste rock site contact will be piped	Quite possible that the operation could go underground in the future, waste rock cannot be stored on top of the development.	Reference Quite possible that the operation could go underground in the future, waster cock cannot be stored on top of the development. Section 4.7 and Section 5 Page 5.3, Table 5.1 File site was selected to avoid double handling, and to reduce or minimize the project chorprint. The co-mingling for layers) of the tailings and waster rock would provide for filling voids in the rock storage, hence the name. Co-mingling has the potential to cause the entire waste rock pile to be contaminated. Co-Disposal Facility for waster rock location All appears that the company alternatives focused on ARD (acid rock drainage), and the notion of residual chemicals in the tailings, cyanide, mercury, etc. Section 3.22 Alternatives Section 4.7 The Project will have its own water collection and it's own contact water management which will ultimately go to a collection pond 3 km from the waters. What thresholds exist to determine she city and the receivance of the receivance of the receivance of the receivance of the project will the results of the most recent geochemistry or the final EIS/EA. And will be supported with the results of the most recent geochemistry or the final EIS/EA. In addition, the mine site water quality more recent geochemistry or the final EIS/EA. In addition, the mine site water quality more recent geochemistry and the results of the estimated mine water quality more recent geochemistry or the final EIS/EA. In addition, the mine site water quality more port (happendix 4-4 of the draft EIS/EA provides a summary of the tailings and acid generating waster rock. Section 3.22 Alternatives Section 3.22 Alternatives The waste rock will be 70 m high will vary between 361 ha to an overall 507 ha with a storage of 11 fm m ¹ . Comparison throughout reports on volumes of Co-Disposal Facility. The Project will have its own water collection and its own contact water management which will ultimately go to a collection pond 3 km from the waster rock waters. What thresholds exist to determine and receivance of	Reference Commenter response Commenter respon	Comparison throughout report and could go underground in the thutur, waste cock carried by section 3 or section 5 of 10 of the development of the stuture of the development of the de

Environmental Impact Statement / Environmental Assessment

Appendix C-6: Slate Falls Nation Comments on Baseline Study Reports and the Draft EIS/EA





Table C-6.1: First Mining Gold Response to Slate Falls Nation Comments on the Springpole Gold Project Baseline Reports and Draft Environmental Impact Statement/Environmental Assessment

ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
		waters at each location in water management system.		The CDF is generally planned to operated as a closed loop and potential accumulation and concentration of parameters has been fully considered in the water quality modeling.			
SFN- 2024-040	Section 5 and 6.13 Caribou habitat	The loss of caribou habitat from the Project alternatives can vary from 0 to 19.7 ha with the desired alternative being 3.9 ha of lost habitat. A mitigation suggested is to design and implement a caribou habitat restoration program in collaboration with Indigenous communities and MECP. An important factor in determining appropriate alternatives is the loss of habitat for Caribou; Caribou are an important cultural species that must be protected. In addition to linear features impacting caribou, there is a specific focus on the mosaic of habitat types across the landscape.	SFN must be involved in the design and implementation of any Caribou habitat restoration activities. SFN must have access to any caribou (and other wildlife data) gathered to augment any future regional land use planning efforts. SFN expects that the cumulative effect on caribou will be considered and include SFN knowledge of local herds. Where does this development fit into the prescriptions and harvesting scheduled across this forest for the next 100 years?	We support SFN being involved in caribou habitat mitigation planning and restoration activities and are in the process of coordinating a caribou habitat workshop with SFN. Should the Project proceed to construction, we commit that SFN and FMG establish a joint environment committee as a forum to participate in the development and implementation of environment programs for the life of the Project. Cumulative effects from forestry, mining, roads and fire across the Churchill Range relative to Caribou distribution and abundance has been assessed, with the key factors being forestry and fire. The development of the Project represents a small addition to the landscape. While the Project is not currently accounted for within the current harvesting schedule for the region it would be accounted for as a component of any Forest Management Plan updates and annual cut plans. The Lac Seul Forest Management Plan is currently in preparation and should take the Project in to account.	Unresolved. More discussion is needed on what a joint environmental committee would entail and how wildlife impacts could be adaptively managed during operation. SFN has requested a meeting to learn more about FMG's work on caribou. Additional Questions or Information requests: There is concern with noise and traffic in the project area versus the area of impact. What are the potential impacts on wildlife, hunting, etc.?	FMG met with SFN to present the work done and proposed assessment approach for Caribou on June 11, 2024 and discuss any questions or concerns from the community. FMG would be happy to continue to host additional meetings and discussions if there are further questions. We anticipate working closely with SFN throughout the EA process and life of mine. The potential effects from increased sound levels due to the Project are assessed throughout Section 6 of the EIS/EA; with Sections 6.12 – 6.16 assessing various wildlife species and Section 6.21 assessing traditional land and resource use, including hunting.	EIS Sections 6.12 through 6.16, 6.21
SFN- 2024-041	Section 6.02 Air Quality	Regarding Fugitive dust blowing from the pit the waste rock, the roads it is said to be "high." PM residual effects could infrequently exceed the Ontario AAQC for particulate matter (PM ₁₀ and PM _{2.5}) and extends no more than 2 km north of the leased property boundary towards Birch Lake. The residual effect is considered moderate in magnitude and occurs 2 days per year for the life of the project. There is concern about dust with unknown chemical composition in it blowing into both Birch and Springpole Lakes which may impact water quality, fish and Indigenous consumption of fish and water in the Cat River system.	Please confirm that concentrations of PM (and chemicals in it) in water will be monitored and when there are guideline exceedances, addressed immediately. How will exceedances be managed? Ensure microbursts and tornados are considered in the cumulative effects assessment for dust.	A dust monitoring plan will be developed and implemented prior to construction and operations. Any dust falling directly on the lake would become a suspended or dissolved particle, or part of the lake substrate. A comprehensive baseline surface water monitoring program has been conducted and is ongoing at the Project site. The program measures both total and dissolved metals and other important parameters. Detailed monitoring plans, including water and sediment in Birch Lake and Springpole Lake will be implemented prior to construction to ensure that EIS/EA predictions are accurate and to identify any exceedances. Monitoring programs will be further refined during the permitting phase, and will include consultation and discussion with Slate Falls Nation. FMG anticipates that Slate Falls and FMG will establish a joint monitoring committee prior to construction	Unresolved. See comment #4 regarding inhalation. Additional Questions or Information requests: What is the composition (elements, contaminants) of dust particles (all sizes of dust particles) falling into water bodies given their behaviour, "suspended" dissolved" or a "substrate"? Has a dustfall monitoring plan been developed? The program should include PM _{2.5} , PM ₁₀ and total particulate matter and include both passive and active (powered) monitoring stations in line with prevailing winds. Further discussion regarding station placement should include SFN to evaluate the magnitude of fugitive dustfall impacting	The contaminants of potential concern included metals and polyaromatic hydrocarbons. The composition for all particulate size fractions were based on the geochemistry 90th percentile results of the rock cores taken for the Project. The Human and Ecological Health Risk Assessment for the final EIS/EA will also be assessing potential risk from inhalation of diesel emissions assuming all PM _{2.5} concentrations represent diesel. Monitoring during the construction, operation, and active reclamation project phases will assess the effectiveness of dust control measures using MECP approved instrumentation for SPM, PM ₁₀ , PM _{2.5} , and dustfall including samples being analyzed for metals. The monitoring program will	EIS Sections 6.2, 6.6, ,12 Appendix G-2





Table C-6.1: First Mining Gold Response to Slate Falls Nation Comments on the Springpole Gold Project Baseline Reports and Draft Environmental Impact Statement/Environmental Assessment

ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
		SFN has noticed increased incidents of microbursts and tornados which will increase dust deposition.		where monitoring plans will be updated, reviewed, and implemented collaboratively.	waterbodies/watersheds of community concern.	be refined as needed to reflect permit approvals. Opportunities will be provided for SFN to participate in the refinement of the monitoring program on an on-going basis through life of mine as part of a proposed joint environment committee. Please also refer to the response to	
SFN- 2024-042	Section 6.24 Human and Ecological Health Risk Assessment	"The ongoing collection of additional site- specific data and Traditional Knowledge and Traditional Land Use information will be considered in order to address the conservatism built into the models." There is concern that the risks to human and ecological health did not consider any TK/TLU from SFN.	SFN appreciates that the HEHRA was completed prior to gathering SFN TK/TLU information, however this information once shared with FMG must be considered in the revision of this section of the EA/EIS. SFN must be consulted about the effects of the project and about risks to their health and the health of the environment they rely on.	The Human and Ecological Risk Assessment Report (HEHRA; Appendix R to the draft EIS/EA) used Traditional Knowledge and Land Use studies and other regional land use plans and studies available at the time of writing to determine the preferred country foods and ingestion rates by members of Indigenous communities in the region. The HEHRA model will be updated for the final EIS/EA. We would be happy to review SFN TK/TLU information once shared.	Unresolved. We look forward to seeing updates in the final EIS.	For additional context, the HEHRA (Appendix R), information from community studies helps to inform: - the selection of parameters, - representative TLRU Points of Reception (PORs) for use in Air Quality modelling, - identification of fish, vegetation and wildlife species important to the community, - identification of important traditional country foods and - informs the selection of representative country foods ingestion rates.	EIS Sections 6.24.1.2, 6.24.2.1 Appendix R
SFN- 2024-043	Section 8. Effects of the Environment on the Project	The company acknowledges extreme weather events. They report that they are committed to adaptive management approach throughout the life of the project. For example, they will have an on-site diesel operation as a back up power source should electricity be reduced or eliminated to the operations. Adaptive management, mitigation measures, and triggers and thresholds are not described other than related to provincial water quality guidelines.	When will FMG bring in adaptive management approaches in the life of the project (if and when mitigation measures fail)? SFN must be involved in adaptive management planning and monitoring.	Extensive monitoring plans are currently in place for the Project and are planned to continue during LOM to verify that conclusions of the EA. The Project also applies mitigation measures that are well established and reliable. Monitoring programs will be further refined during the permitting phase, and will include consultation and discussion with Slate Falls Nation. FMG anticipates that Slate Falls and FMG will establish a joint monitoring committee prior to construction where monitoring plans will be updated, reviewed, and implemented collaboratively.	Partially resolved . FMG has committed to involving SFN in adaptive management planning and monitoring. However, the scope and structure for SFN participation is to be determined in consultation with SFN, should the project be approved. If developed, monitoring plans should include Western science triggers and thresholds as well as triggers and thresholds developed using traditional knowledge and in reference to traditional land use objectives.	Acknowledged.	N/A
SFN- 2024-044	Section 5 Alternatives	"It is expected that additional input will be received through the consultation on the draft EIS/EA that will be incorporated into the final EIS/EA" SFN has not been satisfactorily engaged in meaningful discussions about alternatives. Meetings were held in January 2024 (on fish and fish habitat compensation options), and in	SFN expects that FMG will fully engage SFN on all of the proposed alternatives presented in the EA/EIS prior to submitting the final EA/EIS to government regulators.	We would be pleased to have a meeting dedicated to the alternatives assessment with a focus on the Multiple Accounts Analysis process for the CDF and road. The transmission line has been adjusted based on SFN feedback and the adjustment will be reflected in the final EA.	Partially resolved A meeting on alternatives has been requested.	FMG appreciates meeting with SFN to review the approach and results of the alternatives assessment on June 12, 2024.	EIS Section 4.19

Environmental Impact Statement / Environmental Assessment

Appendix C-6: Slate Falls Nation Comments on Baseline Study Reports and the Draft EIS/EA





ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
		February 2024 (road and transmission line options) and are only the beginning of discussions on these alternatives. SFN is dismayed with the recent Ontarioissued permit for a winter road for one of the access road alternatives without consultation with SFN. This action, which occurred only days following the FMG/SFN meeting on road alternatives, where the permit was not mentioned by FMG, has damaged the relationship between SFN and FMG. To establish trust and a positive working relationship SFN expects transparency and full		Alternatives for the project components have been shared on numerous occasions since the start of the federal and provincial EA processes and meetings have been offered. Alternatives were also presented at the SFN community meeting in November 2021. However, we would be pleased to review the material together during a technical meeting.			
SFN- 2024-045	General	engagement on all project alternatives. SFN notes that there is avoidance of study area overlaps with the planning area in the Cat Lake Slate Falls Community-Based Land Use Plan.	Please provide rationale for this avoidance and ensure that study areas used are appropriate for the valued components, rather than avoidant of a land use plan regime.	The lack of overlap is unintentional and based on the Project location and definition of study area boundaries. The proposed Project as presented in the draft EIS/EA, did not overlap with the planning area for the Cat Lake / Lac Seul Community Land Use Plan. However, as a result of consultation, the transmission line route has been optimized and is proposed to follow the existing E1C transmission line to the Wataynikaneyap transmission line (Alternative 1 in draft EIS/EA). As a result, the PDA and the Local and Regional Study Areas for effects assessment will overlap with the planning area.	Resolved. Note that SFN will apply principles and decision-making processes from the CBLUP to all areas within the territory, not only within the LUP study area.		N/A
SFN- 2024-046	Section 5.7 Alternatives assessment	SFN does not accept 150 m set back from waterbodies for any mining infrastructure is sufficient given the very high-risk rating given to the co-disposal facility from the CDA and LRIA. SFN notes that the Cat Lake Slate Falls Community Based Land Use Plan (CBLUP) would use a buffer of 2km from a waterbody in a designated protected area, in which the proposed mine would be in if it were covered by the planning area. One of the options for the co-disposal facility was 7 km from the open pit and may have been in compliance with this set back.	Please include options for mining infrastructure that considers the water body set back objectives contained in the CBLUP.	The location and design of the co-disposal facility (CDF) has undergone an extensive alternatives assessment in accordance with Environment and Climate Change Canada Guidelines for the Assessment of Alternatives for Mine Waste Disposal (Appendix E of the draft EIS/EA). The assessment includes options that are further removed from water for comparison. The CDF design meets all relevant requirements of the CDA, as well as provincial requirements under the Lakes and Rivers Improvement Act. In addition, FMG will have a qualified geotechnical engineer dedicated to the safe design, construction and operation of the CDF. An Independent Geotechnical and Tailings Review Board (IGTRB), has already been formed and is composed of an independent three-person panel of experts. The IGTRB will review the detailed permitting designs, construction, ongoing operations and closure design of the CDF.	Unresolved. Additional clarity is needed on the choice of a suitable buffer from waterbodies. More information is also needed on the CDF design which is currently dependent on an "expert". Also see Comments #47, #50, and #62.	The proposed CDF layout provides setback ranging from 120 m (minimum offset) to as much as 300 m providing additional allowance for environmental contingency measures. The IGTRB consists of three experts as described in the letter provided to SFN on July 18, 2023.	EIS Section 4 Appendices V- 1, V-3.3, V-3.4

Springpole Gold Project

Environmental Impact Statement / Environmental Assessment

Appendix C-6: Slate Falls Nation Comments on Baseline Study Reports and the Draft EIS/EA





ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
				Project infrastructure located within the boundaries of the Cat Lake Slate Falls Community Based Land Use Plan will be designed in compliance of the Plan.			
SFN- 2024-047	Entire PFS Comparison of Terminology PFS, EIS	In the pre-feasibility study, it's called the waste storage facility (WSF) versus in the EIS it's called the co-disposal facility (CDF). Another example is in the pre-feasibility study. It's called a Water Treatment Plant versus in the EIS its called the Effluent Treatment Plant. There is a difference in some nomenclature (inconsistent terms) for describing the various facilities and aspects of the project in each of these reports which creates confusion and leads to mistrust. There does not appear to be a co-ordinated effort between the engineering/operations team and the environmental group/consultants.	Please use consistent terminology and description of the Project between the PFS and EA/EIS?	See reply above to Comment #31.	Partially resolved. See response in Comment #31.	Acknowledged, please let us know if there are any further specific question or clarifications about the terminology required.	N/A
SFN- 2024-048	Section 3.3.1	FMG anticipates they will have sub aqueous storage of potential acid generating PAG tailings during the operations. As the storage is on a peninsula (elevated land) there is concern about how water can be stored on a peninsula.	How does FMG propose to store PAG in a limited and elevated land base under water?	The co-disposal facility (CDF) design includes perimeter embankments constructed from non- acid generating (NAG) rock on the downstream side sourced from the open pit and onsite quarries. This is typical of most modern mining operations. The co-disposal facility (CDF) is located on a natural area of land consisting of highly competent rock favourable for construction (See Comment #16). The south cell will be designed to be water retaining, and will comprise a slurry PAG tailings cell, with an internal water management pond during the operations phase. The cell embankment is proposed to be lined with a low permeable liner to mitigate seepage and ensure that a water cover is maintained.	Need additional information for clarity and confidence as requested under Comment #16.	See the response to comment #16.	
SFN- 2024-049	Section 3.3.2	FMG states that mine rock will be used in the fish development area (new habitat as part of offsetting program?) Uncertain as to whether this is the same as the quarry referred to in the prefeasibility study or whether there are two excavation sites?	Will more land be excavated to allow for the fisheries offset programs and if so how will the PAG and NAG be monitored?	The statement is referring to the same quarry. The fish habitat development area is proposed to provide fish habitat offsetting and compensation at closure and will provide quarried rock during construction. To facilitate a small overall Project footprint, NAG material will be quarried from this area during construction and operation rather than developing a dedicated quarry at another location. The quarry will be developed consistent with the bulk excavation plan for the final fish habitat design. At closure, fine grading, substrate placement and	Resolved.	The proposed CDF layout provides setback ranging from 120 m (minimum offset) to as much as 300 m providing additional allowance for environmental contingency measures.	EIS Section 5, Appendix V-1

Springpole Gold Project

Environmental Impact Statement / Environmental Assessment

Appendix C-6: Slate Falls Nation Comments on Baseline Study Reports and the Draft EIS/EA





ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
				fish habitat features will be completed to the specifications of the final design.			
				Geochemical assessment has determined that the fish habitat development area (quarry) rock is NAG and non metal leaching.			
SFN- 2024-050	9.6.2.2 Accidents and Malfunctions	Much of the contaminated rock and tailings will be in the south cell in an embankment and at the south end of peninsula. FMG is concerned about the failure of the wall of the dam to hold this cell. The company states that there may be residual cyanide heavy metals, ammonia pneumonia and cyanide left over from the ore processing in south cell waste rock. The company goes onto argue that the water quality will deteriorate overtime, and they also say that this water could affect local aquatic life.	Has FMG taken the precautionary approach to Waste Storage Facility design in the event that water quality deteriorates/dam failure and does flow into the aquatic environment?	Given the robust downstream raise construction design for the south dam, failure of the CDF is highly unlikely and is assessed in Section 9. The co-disposal facility (CDF) design meets all relevant requirements of the Canadian Dam Association (CDA), as well as provincial requirements under the Lakes and Rivers Improvement Act. In addition, FMG will have a qualified geotechnical engineer dedicated to the safe design, construction and operation of the CDF. An Independent Geotechnical and Tailings Review Board (IGTRB), has already been formed and is composed of an independent three-person panel of globally recognized experts. The IGTRB will review the detailed permitting designs, construction, ongoing operations and closure design of the CDF. The CDF will be designed to meet the factors of safety required by regulatory agencies for long-term, static loading conditions as well as pseudo-static loading conditions and will be designed in stages with early construction and placement of material focused on the south cell of the CDF. By using predominantly mine rock to construct the embankments, the overall stability of the facility is not affected by the strength of the thickened and slurry tailings. The embankments will be constructed with 3H:1V upstream slopes and 2H:1V downstream slopes for both the north and south cells. Reflecting the stability characteristics of the different types of materials being stored, the north cell will have a centreline construction while the south cell with have a robust downstream construction. The south cell perimeter embankment will also be lined with a low permeability material, such as a geomembrane, for seepage control. Further, there will be a setback buffer of at least 120 m will be maintained between the CDF perimeter seepage collection system and surrounding waterbodies.	Partially resolved Waste Storage Facility design remains unclear and depends on expert design group and regulatory requirements/guidelines. See also comment # 62. We look forward to receiving more details about the design itself in the updated EIS. Additional Questions or Information requests: What is the setback buffer, is it 150m or 120m? See Comment #46.	Baseline characterization of metals in surface waters in waterbodies is presented in Appendix N-1 and summarized by surface water system in Sections 6.6 through 6.9 of the draft EIS/EA. Similarly, forecasting of water quality (concentrations by constituent) is presented by surface water system in Sections 6.6 through 6.9, and Appendix N-2 in both the draft and final EIS/EA. Treatment plant residuals can be sequestered in the CDF.	EIS Sections 6.6 through 6.9, 9.2.1 and 9.2.5 Appendices N- 1, N-2, V-1





Table C-6.1: First Mining Gold Response to Slate Falls Nation Comments on the Springpole Gold Project Baseline Reports and Draft Environmental Impact Statement/Environmental Assessment

ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
SFN- 2024-051	Section 9.9	There is discussion in this section about an active water management system as it pertains to the pipeline to the treatment plant and to Springpole Lake, FMG states that the treatment plant to Springpole Lake will handle the effluent. There is not a designated chapter on how the Effluent Treatment Plant removes contaminants and efficacy.	What processes are used in the water treatment plant to remove 100% of contaminants?	Refer to comment 22 for additional information about water treatment engineering. Natural waters under baseline conditions have small amounts of metals, ions and nutrients that are important to aquatic life; and as such water treatment does not attempt to removes 100% of any constituent. However effluent quality will be treated meet all regulatory requirements which are based on the protection of aquatic life.	Unresolved. More information is needed on the baseline natural waters metal content in surrounding lakes, and whether new constituent levels will match the natural levels. Additional Questions or Information requests: How will treatment residuals be managed?	The ETP will be designed and operated to produce a clean effluent quality suitable for discharge to the environment in accordance with applicable regulatory requirements, including the MDMER, and the effluent concentrations required by the MECP to protect the receiving water and aquatic resources (see Section 6.8 of the draft EIS/EA). Best Available Technology Economically Achievable is considered for the ETP to meet protection requirements and is well established and effective for similar mines. The ETP design will be refined with ongoing Project planning and engineering design, and as discharge criteria are finalized during the approvals process. Please also refer to the response to SFN # 7 for further information.	EIS Section 5
SFN- 2024-052	Pre-Feasibility Study -Impacts on Environment	The project will affect 42,000 ha and includes a gold deposit containing 5.3% to 7.1% Sulphides including minerals such as pyrite (iron sulphide), sphalerite (zinc sulphide), and Galena (Lead Sulphide). In the pre-feasibility study (page 1.17) metallurgical testing reported where mercury grades were in the range of less than 0.3 to 8 g per tonne in the flotation feed. Arsenic (arsenic sulphide?) is present in the feed at a concentration of less than 30 g per tonne. They report that these elements may cause issues in the process plant. The ore contains harmful chemicals /compounds/minerals in addition to the gold.	Please confirm that FMG has processes to remove most if not all of the contaminants in the water management system.	See the response to Comment number 51.	Partially resolved. Clarification is needed to determine whether treatment at the ETP will provide appropriate water quality at the end of pipe. Results of bench scale testing of treatment (Comment #13) will help inform this assessment.	Acknowledged, the final EIS/EA will include both, where appropriate.	EIS Section 5.
SFN- 2024-053	Section 1.0	Overall the rock tonnage is 121,600,000 t of ore but there would be a total of 275,400,000 t of waste rock from the pit plus they'll be a quarry developed near the processing site so in total there could be about 287,500,000 t. of rock processed or managed at the site. Production is estimated at 30,000 tonnes per day for a 11.3 year (page 19) and additional	Is FMG confident in their conversions of tonnes of rock in-situ versus rock blasted volumes (volumes may double or more when blasted?)? Is the quarry required for infrastructure development, including constructing the fisheries offset?	Since the draft EIS/EA additional engineering studies have been completed and optimizations made to the mine plan and rock balance. Under the current plan, 133 Mm³ of mine rock will be produced by the mine, with ~80 Mm3 of mine rock and quarried rock utilized for construction. All the engineering design work and volumes of material have been determined using well established values for material expansion	Partially resolved There is lack of clarity with the use of tonnes versus volume (m³) as terms have not been used consistently.		N/A

Environmental Impact Statement / Environmental Assessment

Appendix C-6: Slate Falls Nation Comments on Baseline Study Reports and the Draft EIS/EA





Table C-6.1: First Mining Gold Response to Slate Falls Nation Comments on the Springpole Gold Project Baseline Reports and Draft Environmental Impact Statement/Environmental Assessment

ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
	Reference	three year preproduction period. At the end of mining there will be a reclamation period of three years starting in year 9. In mining, there will be 226 t Haulage trucks ton trucks for a total of 17 trucks on the site. In the design volumes are used with weight, metric tonne. Conversion has an impact on required space for rock storage and management. It is planned that there will be 196,600,000 m³ of waste rock of which 9,800,000 m³ will go back into the pit (back fill in pit).	Will the haul trucks be autonomous and EV powered?	and conversions of mass to volume. A swell factor of 22% (considering some compaction) is used for waste rock and overburden material to estimate volume requirements and the average dry density of mine rock used is 2.2 t/m+. The project design will continue to be advanced as it moves through the EA, and engineering feasibility phase of design. At this time, investigations are being made into the feasibility and availability of autonomous and EV powered haul trucks. The technology is not quite there for the types of trucks required and the EA assumes diesel trucks for a conservative assessment of effects. However, FMG will continue to monitor the technology advancements. FMG has begun to evaluate renewable energy spin off opportunities in relation to the transmission line and would be pleased to discuss this further with			Addressed
				SFN as a potential Project benefit.			
SFN- 2024-054	Section 1	The recovery method includes cyanide destruction of tailings with an uncertain success of the cyanide destruction. The chemicals involved or reagents in the recovery process, include pebble, lime, sodium cyanide, sodium hydroxide, copper sulfate, penta, hydrate, hydrochloric acid, sodium meta-sulphite activated, carbon, flocculant, coagulant, and other frothing agents. Water will be released from the processing plant as recovery proceeds. There will be water from seepage from the tailings and from contact water. The company suggests that modelling is required to better understand the water flows on Table 1.7. The challenge will be in determining what water is going to be recycled and what water will go to a water treatment plant and then discharged into Springpole Lake.	Please provide a water management system with options for treatment/ management and concentrations of chemicals at each stage in water transport.	The water management system and plans for water treatment are presented in the Surface Water Effects Assessment of the draft EIS/EA (Sections 6.5 through 6.9) as well as Appendix M-2. Predictive modelling for chemicals in effluent and water (including tailings seepage, collected contact water, and effluent) was completed to support the draft EIS/EA (Appendix K-2, Appendix N-2). To summarize, an integrated water management system has been developed for the Project, designed to collect and control all contact water from the stockpiles, the co-disposal facility, plant site areas, and water from the open pit. These waters will be conveyed to a centralized water management pond for management, monitoring, and ultimately recycled and used in processing or treated and discharged. Collected contact water not re-used in processing will be treated at the effluent treatment plant (ETP) and discharged to the southeast arm of Springpole Lake, as needed to maintain a safe site water balance. Concentrations of chemicals in effluent (i.e., effluent quality) will be mitigated with the ETP using Best Available Technology Economically Achievable and meet applicable regulatory requirements	Unresolved. It is unknown how many of these chemicals remain in the system as recycled or as influent or effluent. More information is needed on the "technologically economically achievable process to meet the guidelines" to better understand the water quality impacts.	All parameters with water quality guidelines for the protection of aquatic life are included in the water quality model to understand potential water quality impacts of the Project. This includes chemicals associated with mining activities, blasting (nitrate, nitrite, ammonia), and ore processing. FMG will offer opportunities to collaborate with SFN to refine follow-up and effects monitoring programs, including for aquatics and fisheries as well as triggers for adaptive management, as appropriate. Current monitoring programs will be refined and implemented to reflect conditions of approval and verify the accuracy of the predicted effects, assess the effectiveness of the implemented mitigation measures and may be further optimized in response to monitoring data. A follow up and monitoring program, based on current extensive monitoring, is being prepared for Section 12 of the final EIS/EA.	EIS Sections 5, 6.5 to 6.9, 12 Appendices M- 2, N-2





ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
				of the Environment, Conservation and Parks to		We suggest and offer that it would be	
				protect the aquatic life in the Springpole Lake (the		beneficial to have a meeting for FMG	
				receiving water). In addition to treatment at the ETP,		and WSP to provide a presentation on	
				cyanide destruction will be utilized to reduce		the water management and treatment	
				cyanide concentrations in tailings plant prior to		system. Also, FMG did host a webinar	
				tailings deposition in the CDF. Process chemicals are		on Water Management and Treatment	
				not expected to occur in effluent after treatment at		that explained this in November 2023	
				the ETP.		and encourages SFN to review the	
						video and/or PowerPoint of the	
				The preliminary ETP considered in the Pre-feasibility		presentation on our EA website:	
				Study was a modular effluent treatment system.		https://experience.arcgis.com/experien	
				Additional engineering has optimized the water		ce/fb5518492b144cd7a4c4a4617683ee	
				treatment concept as follows:		22/p age/Draft-EIS%2FEA-Summary-	
				 A biological process will be used based on the 		Materials-and-Presentations/	
				moving bed bioreactor concept, where plastic			
				carriers with attached biofilm move freely in the		Further information on water	
				water column and remove contaminants present in		management is being developed for	
				the wastewater. The moving bed bioreactor will also		inclusion in Section 5.3.7 of the final	
				be used for cyanide destruction in addition to the		EIS/EA.	
				in-plant destruction of cyanide in tailings using the			
				sulphur dioxide / oxygen (SO2/O2) treatment			
				process. The by-products are nitrate, carbon dioxide			
				(CO2) and associated biomass.			
				The treatment process will continue to the			
				removal of metals. Arsenic removal will be achieved			
				by ferrous sulphate and iron co-precipitation			
				principles. This will be followed by sulphide			
				precipitation for further metals removal with the			
				dosing of sodium sulphide. Adjustment of pH will be			
				controlled by dosing to alkaline conditions of 7.5 to			
				8 as needed.			
				The final stage involves flocculation, which			
				includes a mixing tank before feeding to a			
				clarification process. Following clarification, the fully			
				treated effluent will be confirmed to meet all			
				applicable regulatory discharge criteria before being released to the environment at the final discharge			
				location in the southeast arm of Springpole Lake.			
FN-	Section 1	The Waste Storage Facility (or Co-Disposal	Please provide more details so that	Section 5 of the draft EIS/EA includes an assessment	Unresolved.	A meeting was held with SFN on June	EIS Section 4.5
024-055	Section 1	Facility), on the peninsula "will be further	SFN can better understand the options	of alternatives for the storage of mine waste,	omesoived.	12, 2024 to review the approach to the	to \$4.9
		evaluated through the environment	- including which are the safest ways	including storage locations, methods and	For site selection, see comments #16 and 48.	assessment of alternatives for the	
		assessment process with the objective to limit	to store contaminated waste	technologies. The detailed assessment of the	SFN requires a better understanding of the	Project, and included detailed	
		infiltration contaminants, and to design an	rock/slurry on the peninsula.	alternatives was prepared in accordance with	assessment of the alternatives for the access	discussion of the mine access road and	
		engineered cover."	leading on the permission	Environment and Climate Change Canada Guidelines	road and mine site facilities.	other mine site facilities.	
		3g		for the Assessment of Alternatives for Mine Waste		In summary the alternatives considered	
		The design parameters for the waste rock		Disposal (Appendix E of the draft EIS/EA). These		for the storage of mine rock and	
		storage area are not described in detail to		detailed assessments consider feasible options to		tailings are described in Section 4.7 of	

Springpole Gold Project

Environmental Impact Statement / Environmental Assessment

Appendix C-6: Slate Falls Nation Comments on Baseline Study Reports and the Draft EIS/EA





ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
		understand the options for subaqueous,		store mine waste and include evaluation criteria for		Section 4 Alternatives Assessment.	
		covered, contoured or burial of contaminated		safety and the protection of the environment.		Three alternatives were identified to	
		waste rock and slurry.		Fundamental design parameters for any alternative		store mine rock and tailings:	
				to be considered would include factors such as		Alternative 1: Co-disposal of mine rock	
				sufficient capacity for the expected amount of		and tailings;	
				material to be stored, reasonable distance to the		Alternative 2: Separate facilities for	
				project site, and ability to meet the timelines /		mine rock and tailings; and	
				schedule for development and operation of the		Alternative 3: In-pit disposal.	
				project. Further, any alternative considered and		Alternative 3: In-pit disposal was not	
				brought forward in the project design would be		considered to be feasible as mine rock	
				designed to meet all regulatory standards (including		and/or tailings would need to be	
				but not limited to federal and/or provincial		stored in a surface facility during	
				legislation and regulations as applicable, as well as		operations and rehandled and placed	
				professional oversight bodies) for safety and		in the open pit near the end of	
				environmental protection.		operations. Re-handling of mine rock	
				We would be happy to walk through the document		and/or tailings poses unwarranted risk	
				during a technical meeting.		to the safety of workers, and potential	
						effects to the receiving environment.	
						This is also not a financial viable	
						options.	
						Alternative 1 (co-disposal of mine rock	
						and tailings) and Alternative 2	
						(separate facilities for mine rock and	
						tailings) are both considered to be	
						technically feasible; however,	
						Alternative 1 does have advantages	
						over Alternative 2, including:	
						Reduced surface area and the	
						associated potential effects on	
						terrestrial habitat including habitat for	
						SAR, such as Caribou (Boreal	
						population);	
						Mixing of mine rock and tailings	
						increases the physical stability of the	
						structure (high shear strength), and	
						maximizes storage capacity, with	
						tailings filling the large voids between	
						rocks;	
						Greater potential for in situ	
						mitigation of metal leaching and acid	
						rock drainage (ML/ARD), restricting	
						atmospheric oxygen within the facility;	
						and	
						Most cost-effective alternative with	
						respect to reclamation requirements,	
						longterm management and liability.	





Table C-6.1: First Mining Gold Response to Slate Falls Nation Comments on the Springpole Gold Project Baseline Reports and Draft Environmental Impact Statement/Environmental Assessment

ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
SFN- 2024-056	Section 1.14	150 acres of Springpole Lake will be de watered in Section 1.1.4.1 and section 1.1.4.2. FMG states that this activity will affect fish habitat. FMG will develop an environmental health and safety EHS Management system. In section 1.1 4.3 regarding wastewater the issue is that 76,000,000 m³ of tailings and 41,000,000 m³ of acid rock will be in the Waste Storage Facility Table 1.7. FMG states that a larger Waste Storage Facility will be constructed if necessary and also depends on the foundational conditions, if they are worse, this presents a risk by not knowing the engineered conditions for the waste storage facility.	Will the Environment health and Safety system be in place before project approval? SFN expects to review the environment, health and safety system. Is FMG confident in the estimated volumes of PAG waste produced from all mining and quarry?	The information required to develop the EHS system will be available through detailed engineering and informed by conditions or both EA and permit approvals. FMG will be responsible for development, implementation, reporting, review and updating of monitoring programs to include applicable environmental approval and permit conditions, as well as federal and provincial requirements and guidelines. It is envisioned that a community environmental monitor from SFN will participate in data collection, and community input will be considered in the development of monitoring programs from an environment committee formed with SFN. Reporting will meet regulatory requirements. The results of monitoring programs will be summarized annually. This information will be used to adapt existing plans, procedures and mitigation measures where appropriate, in order to continue to mitigate environmental effects.	Unresolved. The questions were not addressed. Also rock volumes need to be reconciled with Comment #53.	The environment health and Safety system be in place before construction. There will be 15.5 Mm³ of PAG tailings and 55 Mm³ of PAG mine rock.	EIS Section 5, and 12
SFN- 2024-057	Section 1.4.6	Section 1.4.6, the Closure Plan is estimated to cost \$39 million but the closure plan has not been written but they say that they will meet the Ontario Mining Act section 240/00 in its preparation. Without a detailed Closure Plan, it is unknown how the project will be reclaimed upon closure and what detailed activities are involved in the \$39 million expenditure.	When will FMG commence a detailed closure plan with SFN input, and how much of the \$39 million is earmarked for SFN procurement?	A detailed closure plan is one of the first permitting requirements to follow the EA approval and is required to be in place prior to construction activities. FMG would be pleased to discuss business opportunities with SFN as part of a benefit agreement.	Resolved. Closure plan is dependent on EA approval. Further discussions on IBAs will continue once approval status has been established.	For clarity, mercury is not used in the process. Mercury is included in the water quality models (Appendix K-4, Appendix N-2) and inform the effects assessment for surface water systems (Sections 6.6 though 6.9) of the draft EIS/EA and is being updated in the final EIS/EA.	S5.3.2 and S5.19
SFN- 2024-058	Table 13-6	FMG will undertake an evaluation of the expected chemistry of the surface water runoff from filtered tailings, and the PAG waste, rock, surface and water quality predictions. In Table 13–6, composition of waste water arsenic is less than 30 g per ton and mercury up to 8.1 g per ton with sulphide content up to 5.5% The company concludes that they must control ("warrant") the mercury throughout the processing system.	Please provide a flow chart from the water management plan to show mercury levels throughout the water management system at each stage.	Mercury predictions were provided in the draft EA/EIS as geochemical source terms (Appendix K4) and as influent and effluent quality in Appendix N2. These predictions show that mercury is low throughout the entire water management system.	Unresolved. More information is required on the levels of all contaminants, including mercury, throughout the entire system, similar to previous comments related to contaminants (Comments #13, 15, 17, 33).	Thank you for the feedback. Water quality model parameters and standards (including concentrations of nitrate, nitrite and ammonia) are presented in Section 6.6.5.2 (Analytical Methodology) and Appendix N-2 (Surface Water Quality Model Report) of the draft EIS/EA. Please also refer to response to comment #18.	EIS Section 6.6 Appendix N-2
SFN- 2024-059	Section 16.11	Rock blasting on page 16–50, FMG states that they will use an emulsion explosives due to the expected wet conditions, FMG does not indicate the nitrate level of the	How much nitrate will be released to the ground water, pit seepage and contact water as a result of explosives used in blasting?	Contact water, including runoff from rock piles with potential for blasting residues, will be collected, managed and treated prior to discharge to the southeast arm.	Unresolved. We look forward to reviewing the updated EIS. See additional comments regarding explosives under Comment #18.	Please refer to the responses to Comments #15, 17 and 22.	EIS Section 6.6 Appendix N-2

Environmental Impact Statement / Environmental Assessment

Appendix C-6: Slate Falls Nation Comments on Baseline Study Reports and the Draft EIS/EA





ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
		explosive as this may be harmful to water system(Nitrates?)		Concentrations of nitrate, nitrite and ammonia have been added to the water quality models, and updated predictions will be provided as part of the final EIS/EA.			
SFN- 2024-060	Section 17 page 17–8	Cyanide detoxification FMG states that they will reduce the amount of cyanide in water from the processing plant from 200 mg/L to less than 5 mg/L for as they say to comply with requirements prior to deposition to the waste storage facility. They further state that in 17–4 to page 17–14, that the handling of reagents, chemicals used in the processing, will contain cyanide and other elements, and that they may consider separate water circuits for cyanide and noncyanide water on page 17 – 6–2. There will still be cyanide in the water management system from the ore processing plant.	Please provide a scenario/process where cyanide contamination is absent (zero) before waste rock storage AND before the water treatment plant (before discharge into the environment).	In-plant effluent treatment using SO2/Air will be used to destroy cyanide and to precipitate metals in the processing plant tailings effluent before it is discharged to the CDF. This is the standard proven technology used to treat gold mine tailings effluents at most mines in Ontario. The treated effluent will be discharged to the CDF and the CDF will generally be operated as a closed loop system. Excess waters collected in the Central Water Storage Pond (CWSP) will be treated in an Effluent Treatment Plant (ETP) before being released to the environment. Within the ETP, a biological process will be used based on the moving bed bioreactor concept, where plastic carriers with attached biofilm move freely in the water column and remove contaminants present in the wastewater. The moving bed bioreactor will be used for additional cyanide where the by-products are nitrate, carbon dioxide (CO2) and associated biomass. The final stage of treatment involves flocculation, which includes a mixing tank before feeding to a clarification process. Following clarification, the fully treated effluent will be confirmed to meet all applicable regulatory discharge criteria before being released to the environment at the final discharge location in the southeast arm of Springpole Lake. The ETP will be designed to produce an effluent quality appropriate for discharge to the environment in accordance with applicable regulatory requirements, including the federal Metal and Diamond Mining Effluent Regulations, and the effluent concentrations required by the Ministry of the Environment, Conservation and Parks to protect the receiving water and aquatic resources. A rigorous monitoring program will be in place to ensure effluent and receiver water quality is	Partially resolved More information is needed on specific treatment technologies. See Comments #15, 17, 22.	See response to Comments #46 and 50 All aspects of the Springpole Gold Project have been designed to meet or exceed applicable safety and environmental regulations. At this EA stage, the effects of potential accidents and malfunctions, even if improbable, are considered and assessed. The EIS/EA identifies design mitigation measures and operational safeguards, as well as proposed contingency measures and emergency response procedures, to eliminate or reduce potential effects. Section 9 of the EIS/EA identifies contingency and emergency response measures for a number of potential unlikely events.	EIS Sections 5, 9





Table C-6.1: First Mining Gold Response to Slate Falls Nation Comments on the Springpole Gold Project Baseline Reports and Draft Environmental Impact Statement/Environmental Assessment

ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
FN-	Section 17	FMG discusses the processing plant water	Is FMG confident that the daily water	Yes, the mine site water balance modeling has	Resolved		EIS Section 6.6
24-061		balance where they will use 209 m ³ of water	use and volumes will be consistent in	evaluated the water taking requirements during a			Appendix M-2
	Figure 17–3	per hour and they will pump 4,610 m³ per day	the event of a drought and/or flooding	1:100 wet and 1:100 dry year, in addition to average			Section 4.0
		and it is anticipated that 6,585 m ³ of day of	(high precipitation events)?	conditions.			
		water will go to tailings.					
			Will FMG monitor lake levels to assess	The mine site water balance model demonstrates			
		The site has the potential to recycle	the impact of water uptake on water	that water takings from Birch Lake increase during a			
		contaminated waters throughout life of mine	levels?	1:100 dry year when compared to average climate			
		and to uptake and consume water daily from		conditions. However, the estimated change in flow,			
		the Birch Lake.		compared to existing conditions, is negligible			
				(Section 6.6 of the draft EIS/EA). This is attributed to			
				the very large contributing watershed to Birch Lake.			
				FMG is currently, and will continue to, monitor lake			
				levels in Birch Lake and Springpole Lake.			
-	Section 17	The waste storage facility will be constructed	Has FMG considered being overly	The CDF design meets or exceeds all relevant	Unresolved.		EIS Section 5
4-062		by regulation as a very high hazard structure	cautious (pre-cautionary principle) in	requirements of the CDA, as well as provincial			Appendix V-
	Figure 17-3	as defined by the CDA 2019 and LRIA 2011	designing the waste rock area stored	requirements under the Lakes and Rivers	More information is needed on the specific		
		regulations.	on the Springpole Lake peninsula to	Improvement Act. This includes an extensive	methods used to determine CDF dam		
			consider all risk parameters?	geotechnical investigation of CDF site area	integrity. See Comments #46 and 50.		
		The Waste Storage Facility is rated as a "very		foundation conditions including the development 28			
		high hazard structure".		boreholes and the excavation of 69 test pits. Results			
				of the investigation show that the major portion of			
				CDF dams will be constructed on a stable bedrock			
				foundation, with remaining portions being			
				constructed mainly on areas of shallow overburden.			
				Applicable requirements from the following			
				regulations, guidelines, and standards have been			
				adopted as the minimum design requirements for			
				the CDF design and analyses:			
				– Dam Safety Guidelines 2007 (2013 Edition).			
				Canadian Dam Association (CDA 2013);			
				Technical Bulletin: Application of Dam Safety			
				Guidelines to Mining Dams (CDA 2019);			
				 Global Industry Standard on Tailings 			
				Management (GISTM 2020); and			
				 Technical Bulletins, Ontario Environment and 			
			Energy, Dam Management (Lakes and Rivers				
			Improvement Act).				
				Design requirements of GISTM, being the global			
				technical standard, has also been considered in			
				developing the design criteria.			
				In addition, FMG will have a qualified geotechnical			
			engineer dedicated to the safe design, construction				





ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
				and operation of the CDF. An Independent			
				Geotechnical and Tailings Review Board (IGTRB), has			
				already been formed and is composed of an			
				independent three-person panel of experts. The			
				IGTRB will review the detailed permitting designs,			
				construction, ongoing operations and closure design			
				of the CDF.			
				As noted in the response to Comment #55, the			
				selection of the mine waste storage facility was			
				based on a rigorous assessment of alternatives, that			
				included consideration of various factors with			
				priority on environmental criteria.			
	Section 18.3.3	Tailings characteristics, the rock within the	What is the overall density of the waste	A swell factor of 22% (considering some	Resolved		Appendix V-1
2024-063		tailings may be 2.81 density specific gravity	rock pile compared to the insitu rock	compaction) is used for waste rock and overburden			
		(solid rock),	density of 2.81 g/cm3 (confirm broken	material to estimate volume requirements and the			
			rock expansion factor)?	average dry density of mine rock (PAG & NAG) used			
		The company anticipates a water collection		is 2.2 t/m3.			
		facility near the ore processing plant or pond					
		to collect water, which will ultimately either be					
		used to recycled in the processing plant or go					
		to a treatment plant and then Springpole					
		Unknown whether the tonnage of waste					
		(broken rock) correlates with the volume of					
		waste (expansion factor and whether projected					
		volumes are correct) and that the calculations					
		could be underestimated (could be more					
		waste rock than estimated).					
		Tailings density 2.81 density specific gravity					
		(solid rock), the waste rock pile would be a					
		much lower density.					
		Rock expansion factors will impact the waste					
		rock storage area and height engineering.					
		Environmental impact statement section 2.1.2					
		or in section 2–2 (needs to be checked).					
	Section 18.4.2	Cofferdam, they describe the hazard	How certain is FMG that the both the	The construction and use of dikes is a well-	Unresolved.	Acknowledged.	EIS Sections
2024-064		classification as very high.	construction and maintenance of the	established practice that has been undertaken in			5.7.1.1, S5.12.3
			cofferdam is of a lower risk than	Canada at much larger scale compared to the	We look forward to seeing updates, including		
		Draining a portion of the lake (150 ac) and	assessed by regulations?	Springpole Project. The dikes have been classified as	an updated PFS design brief, in the final EIS.		
		building a dam to prevent water seepage and		Very High under both CDA guidelines and the LRIA"			
		structural failure can be uncertain and very		which is the second highest classification possible in			
		high risk to environment.		order to insure a very rigorous design basis for the			
				structures such as seismic events and precipitation			

Springpole Gold Project

Environmental Impact Statement / Environmental Assessment Appendix C-6: Slate Falls Nation Comments on Baseline Study Reports and the Draft EIS/EA





ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
				events. The design standards considered in the engineered plans for the dikes takes into consideration this classification to ensure the proper safeguards are built into the plans. An updated PFS design brief for the dikes (cofferdams) will be provided with the final EIS/EA and will also confirm a classification of Very High.			
SFN- 2024-065	STPN-2021-146	STPN 2021 requested comparisons of groundwater to Provincial Water Quality Objectives (PWQOs). FMG noted that PWQOs are meant for surface water not groundwater. STPN 2022 requested comparisons with qualification.	PWQO are indeed meant only for comparison to surface water quality.	Provincial Water Quality Objectives (PWQO) and interim PWQO (iPWQO) represent water quality guidelines for the Protection of Aquatic Life and are not applicable to groundwater quality. A comparison of predicted groundwater quality/seepage quality to PWQO/iPWQO was provided in Appendix K4, for benchmarking purposes only.	Resolved.	PFS / Project Design Document, not draft EIS	N/A
SFN- 2024-066	STPN-2021-168 & 169	STPN requested updated Climate Normals (to 2020) be incorporated.	FMG is correct that the most recent period for station Red Lake A is 1981-2010 (based on online data availability). The closest station with updated normals (1991-2020) online is Sioux Lookout (#6037775); it is located ~150 km south of the project area.	Agreed. The updated baseline hydrology report will include the Climate Normals available at the time of preparation. Updated climate normals have been published for Sioux Lookout, which was reviewed in the updated baseline hydrology report due to its proximity to the site. However, it is located approximately 150 km south of the Project and has historically received greater precipitation than the site. For this reason, it is not considered representative of the Project site conditions.	Resolved.		Appendix M- 1, Section 3.3.1
SFN- 2024-067	STPN-2021-170	STPN notes that the evaporation data are outdated and suggests that recent data from 2019 be used instead.	The long-term record is indeed outdated (published in 1978) but given the inter-annual variability in weather, it is not defensible to consider data from a small number of years to be representative of long-term conditions.	The pan evaporation data referenced by SRK's 2019 report was recorded by ECCC between the 1960's and 1990's, it is not data collected in 2019. ECCC has ceased collection of pan evaporation data, therefore more recent data is not available. Recognizing this, lake evaporation has also been modeled with the Hamon equation, which considers daylight hours and site temperature data, which has more recent and robust data records. Modeling evaporation with this approach generated very similar results to the Hydrologic Atlas of Canada (Appendix M-1 of the draft EIS/EA). The Hamon equation has been applied to the water balance modeling. The modeled approach allows us to consider the effects of higher temperatures on evaporation. Furthermore, pan evaporation data is collected by FMG at an on-site weather station. Data collected from this station generally aligns with the values calculated with the Hamon equation. Data collection at the on-site weather station is ongoing and will continue to be compared against other data sources.	Resolved.		Appendix M-1, Section 3.3.3

Springpole Gold Project

Environmental Impact Statement / Environmental Assessment Appendix C-6: Slate Falls Nation Comments on Baseline Study Reports and the Draft EIS/EA





Table C-6.1: First Mining Gold Response to Slate Falls Nation Comments on the Springpole Gold Project Baseline Reports and Draft Environmental Impact Statement/Environmental Assessment

ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
SFN- 2024-068	STPN-2021-182	STPN requests that water quality be compared to both PWQO and federal guidelines.	We recommend comparing water quality to a single guideline for each parameter. It is conventional to compare to PWQO and to federal guidelines only for parameters without PWQO (e.g., chloride or nitrate).	The final EIS/EA uses a consistent set of Water Quality Guidelines for the Protection of Aquatic Life (WQG PAL) as per the latest guidance from the Ministry of the Environment, Conservation and Parks (MECP). Recent MECP guidance necessitates the utilization of the most current WQG PAL sourced from either the Provincial Water Quality Guideline (PWQO/iPWQO), or the Canadian Water Quality Guidelines/	Partially resolved We look forward to reviewing the final EIS/EA for a confirmation on the parameters established by the provincial and Canadian guidelines. Where multiple jurisdictions have overlapping guidelines, it is assumed that the PWQOs will hold priority as the most applicable guideline. However, the most recently developed objective across jurisdictions may also be preferred if they are more likely to be the most scientifically defensible, providing an appropriate level of protection to aquatic life and end users.	Water quality model parameters and standards are presented in Section 6.6.5.2 (Analytical Methodology) and Appendix N-2 (Surface Water Quality Model Report) of the draft EIS/EA. Technical meetings have been proposed to present and/or discuss any clarification required in advance of the final EIS/EA.	Appendix N-1, Section 2.3.3 and Table 2-4
SFN- 2024-069	STPN-2021-215	STPN requested updated Climate Normals (to 2020) be incorporated.	See above (re STPN-2021-168/169).	The updated baseline hydrology report will include the Climate Normals available at the time of preparation. Currently, the 1991-2020 Climate Normals have not been published for the representative ECCC stations in the vicinity of the Project (Red Lake or Ear Falls).	Resolved		Appendix M-1, Section 3.3.1
SFN- 2024-070	STPN 2021.4	In the HEHRA report there is a query regarding the source of mercury where the report from the company denotes that there is no local source of mercury present and that mercury is not proposed in the process of a gold.	We know from the pre-feasibility study, as well as portions of the EA/EIS that there may be some mercury in the processing of gold, and there is background elevated mercury level in the ore itself. Please confirm mercury concentrations in soils, gold deposit and host rocks.	A summary of inorganic contaminants of potential concern in soil can be found in Section 3.4.3.2 of Appendix R (Human and Ecological Health Risk Assessment Model Report) of the draft EIS/EA. The maximum concentration of mercury in the collected soil samples did not exceed federal or provincial guideline values. A summary of key metals in host rock and ore is presented in Section 4.3 of Appendix K-1 (Static Geochemical Testing Baseline Report) of the draft EIS/EA. Solid phase mercury concentrations in the project rock are low. Specifically, mercury concentrations were below qualitative threshold values (10 times crustal abundance) in 98% of the mine rock samples (n=756 of 769 samples) and 94% of the ore-grade samples (n=136 of 145 samples). The potential for mercury leaching from the rock is also low for most materials based on the results of leaching tests (Appendix K-1) and humidity cell tests (Appendix K-2).	Resolved		EIS Section 3.4.3.2, Appendix K-1, Section 4.3, Appendix K-2
SFN- 2024-071	STPN 2024-2	There is concern about whether the culture and social objectives can be met and whether they can also be restored at the closure. Firelight reports that there are no stated	How does FMG propose to rehabilitate lost cultural components and intergenerational loss of connection?	FMG seeks to support communities in enhancing their cultural and socio-economic objectives. To do so we must first understand those objectives through information with SFN and we were please to support the Socio-economic baseline study and	Partially resolved. SFN expects to conduct an independent Anishinaabe-led Impact Assessment that will assess the effects of the project, as well as	FMG has been pleased to provide capacity support for SFN participation in the EA process, and the Socioeconomic study will be considered in the final EIS/EA. FMG	EIS Section 2 Appendix Q-3

Environmental Impact Statement / Environmental Assessment

Appendix C-6: Slate Falls Nation Comments on Baseline Study Reports and the Draft EIS/EA





ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
		cultural or social economic objectives in the closure plan.		traditional knowledge and land use study. We look forward to receiving those studies from SFN. The Project will provide many avenues for supporting culture and delivering socio-economic uplift to SFN. These aspects are typically developed through dialogue and collaboration, and we would be happy to discuss further with SFN.	cumulative effects on culture and intergenerational transfer of culture.	has also provided a draft Health and Wellness Strategy for the Project to SFN for input and feedback. FMG looks forward to continuing to work together on productive collaborations.	
SFN- 2024-072	STPN 2024-3	There are concerns with reclamation and whether the soil is suitable for reclamation quality and whether or not, it can be revegetated in the current quantity and quality. The company reports that it will undertake progressive reclamation, but the concern is that there may not be enough soil and it's volume is unknown.	What measure(s) will be taken to preserve existing soil reserves and if other materials will need to be imported to compensate for lack of soil for remediation? Will invasive species be mitigated if new materials are imported to the site?	Overburden will be stripped from the open pit footprint, beneath the embankment foundations of the CDF prior to fill placement and within the footprint of the plant site and aggregate and quarry operations. Overburden not needed directly at other site locations for construction or progressive reclamation purposes is planned to be stored primarily in the surficial soil stockpile located east of the open pit or other locations closer to their projected end use. In addition, lake bed sediments will be collected from the open pit footprint and stored for use in reclamation purposes. We do not currently expect to need additional soil from off site to complete site restoration.	Resolved.		EIS Section 5.8.1
SFN- 2024-073	STPN 2024-4	The cost of closure is estimated at approximately \$39 million, however, the breakdown of this cost is not apparent. We assume that it will be detailed once the closure plan is developed with details.	What portion of the closure plan costs, such as SFN goods and services, will be included in the \$39 million?	There are significant business opportunities available for SFN during all phases of the Project. FMG would be pleased to discuss business opportunities with SFN as part of a benefit agreement.	Unresolved. More information and dialogue is needed on business opportunities. See #57.	FMG would be pleased to discuss business opportunities with SFN including but not limited to the transmission line. We will follow up on this separately.	N/A
SFN- 2024-074	STPN 2021-153	STPN requested that sound monitoring also include monitoring of vibration presumably from blasting and mine.	Will FMG control blasts and monitor both sound and vibration to determine impacts on wildlife, fish, people and tourism?	Yes, prior to construction, a detailed blasting plan will be developed for the Project with the blasting contractor which will confirm the maximum allowable explosive loading at various locations within the project development area to ensure compliance with NPC-119, Health Canada and Fisheries and Oceans Canada limits for vibration at the receptors. Monitoring will occur during blasts to verify output compliance. Monitoring programs will be further refined during the permitting phase, and will include consultation and discussion with Slate Falls Nation. FMG anticipates that Slate Falls and FMG will establish a joint monitoring committee prior to construction where monitoring plans will be updated, reviewed, and implemented collaboratively.	Resolved.		EIS Section 6.3.4 Appendix H-4
SFN- 2024-075	STPN 2021-190	There is discussion in table 3.1 D, that mercury levels are high in 2012.	When and what time of the year were these exceeded so that fluxuations can be monitored throughout the year/season?	Some of the water quality results for mercury and chromium between 2011 and 2013 are incorrect. Maxxam Laboratories determined that chromium and mercury exceedances between 2011 and 2013 reflect contamination by an external source through	Partially resolved. QAQC oversight may be in question for other results cited in the draft EIS/EA.	Please note, the results for chromium and mercury referred to are not a QA/QC oversight, but an identified and corrected lab error, captured through the QA/QC process demonstrating its	EIS Sections 6.6 through 6.9 Appendix N-1

Springpole Gold Project

Environmental Impact Statement / Environmental Assessment Appendix C-6: Slate Falls Nation Comments on Baseline Study Reports and the Draft EIS/EA





Table C-6.1: First Mining Gold Response to Slate Falls Nation Comments on the Springpole Gold Project Baseline Reports and Draft Environmental Impact Statement/Environmental Assessment

ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
				laboratory handling and laboratory error. The determination of laboratory error causing contamination of these samples was further substantiated by results of subsequent years of baseline sampling programs. Mercury and chromium concentrations measured between 2013 through 2021 at same monitoring locations are all below the Canadian Water Quality Guidelines. In 2021 ultralow detection of total mercury and methyl mercury was added to the baseline monitoring program. Results since 2021 are all below the Canadian Water Quality Guideline value of 0.000026 mg/L for total		effectiveness. The updated baseline surface water quality database and associated technical supporting documentation are provided in Appendix N-1 and are being summarized by surface water system in Sections 6.6 through 6.9 of the final EIS/EA.	
SFN- 2024-076	STPN 2024-13 2024-14	Tailings dam failure models are of concern, the STPN requested a more thorough analysis of water, treatment, technologies, and methods and possible malfunctions and their impacts on the lakes. There was concern with "how the water treatment plant would meet best available technologies and regulatory requirements Including the communities own standards, especially in the event that the treatment plant is ineffective or ceased to function for a long period of time." They note that community knowledge may further elaborate how the impact of climate will be on the tailings dam.	What is the efficiency and effectiveness of the water treatment plant? Does dam design and safety address climate change, severe extreme or severe weather, events involving rain, ice, snow, thunderstorms, microbursts, wind, and increased temperatures? Will FMG develop an emergency response plan(s) prior to approval?	mercury and confirm that mercury is very low. The effluent treatment plant (ETP) will be designed to produce an effluent quality appropriate for discharge to the environment in accordance with applicable regulatory requirements, including the Metal and Diamond Mining Effluent Regulations, and the effluent concentrations required by the Ministry of the Environment, Conservation and Parks to protect the receiving water and aquatic resources. The ETP includes best available technology that are economically achievable to meet protection requirements. The Project is being designed and will be constructed and operated to meet or exceed regulations and standards for health, safety and environmental management, including design considerations for climate change and other irregular weather events. This will be supported with a Climate Change Risk Assessment that will be appended to the final EIS/EA. In addition, multiple levels of safety measures to reduce the potential for malfunctions or accidents are achieved by following key principles: Incorporate safety and reliability into the design of Project components; Develop and apply procedures and training aimed at safe operation of the Project and that prevent or avoid the upset conditions that might lead to a malfunction or accident; Provide expert review and advice on key Project infrastructure including tailings and mine rock management and associated water management;	Unresolved. Information is needed on the Emergency Response Plan in the updated EIS/EA.	All aspects of the Springpole Gold Project have been designed to meet or exceed applicable safety and environmental regulations. At this EA stage, the effects of potential accidents and malfunctions, even if improbable, are considered and assessed. The EIS/EA identifies design mitigation measures and operational safeguards, as well as proposed contingency measures and emergency response procedures, to eliminate or reduce potential effects. Section 9 of the EIS/EA identifies contingency and emergency response measures for a number of potential unlikely events.	EIS Sections 4.14,S8.2.2, 9.7.3





ID	Specific Reference	Initial Comments & Rationale	Proposed Action / Solution	FMG Response	Commenter Response	FMG Response 2	Where Addressed
				 Provide training in operational procedures and 			
				environmental emergency response procedures,			
				including safety measures to prevent malfunctions			
				or accidents.			
				An emergency response plan will be developed prior			
				to construction and will be further refined during the			
				permitting phase, and will include collaboration on			
				development and implementation with Slate Falls			
				Nation through the proposed joint environment			
				committee as noted in response 30 above. The			
				purpose of the emergency response plan will be to			
				facilitate prompt and efficient response actions for			
				addressing emergencies; identify responsibilities and			
				reporting procedures for emergencies; provide			
				protocols to follow should an emergency occur; and			
				provide information on available resources, facilities			
1				and trained personal in the event of an emergency.			